

上 鎧 鋼 鐵
SHANG KAI STEEL



機械科技 打造精湛工藝

"Building Craftsmanship Through Mechanical Technology."



上鎧鋼鐵董事長

選材 優質原料造就經典

Material Only first-rate raw materials are approved.

設計 不容妥協呈現完整理念

Design Accommodating to diverse needs and requests.

製造 一體成型毫不費材

Production Materials are manufactured to their full potential.

測試 重複苛求以臻完美

Dedication Strict quality control from start to finish.

改良 科技與工藝持續精進

Innovation Consistency at the forefront of performance & technology.

自 1988 年，我們致力於提供卓越的金屬擴張網。因為每一個環節都達到自我的嚴格標準，現在，您可以發現上鎧鋼鐵的產品為全球頂尖的建築師、設計師、營造廠商所信任。在每次密切的合作關係裡，我們的技術總能不斷突破，與之創新。我們可製造符合 CNS, JIS, BS, ASTM, AS 之國際擴張網標準規範尺寸，請與我們聯繫。上鎧鋼鐵符合國際標準化組織 ISO 9001:2015 品質管理系統標準。

Since 1988, Shang Kai Steel has been committed to producing the finest-grade expanded metal. We strive for meeting unparalleled standards throughout our operation, earning our products the trust of prominent architects, designers, manufacturers and distributors worldwide. We view each collaboration as an opportunity to explore new ideas and develop breakthrough techniques. We can also manufacture products from CNS, JIS, BS, ASTM, AS Expanded Metal Specifications, please contact us for details. We have received ISO 9001: 2015 certification from the International Organization of Standardization.

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上鎧鋼鐵 Shang Kai Steel

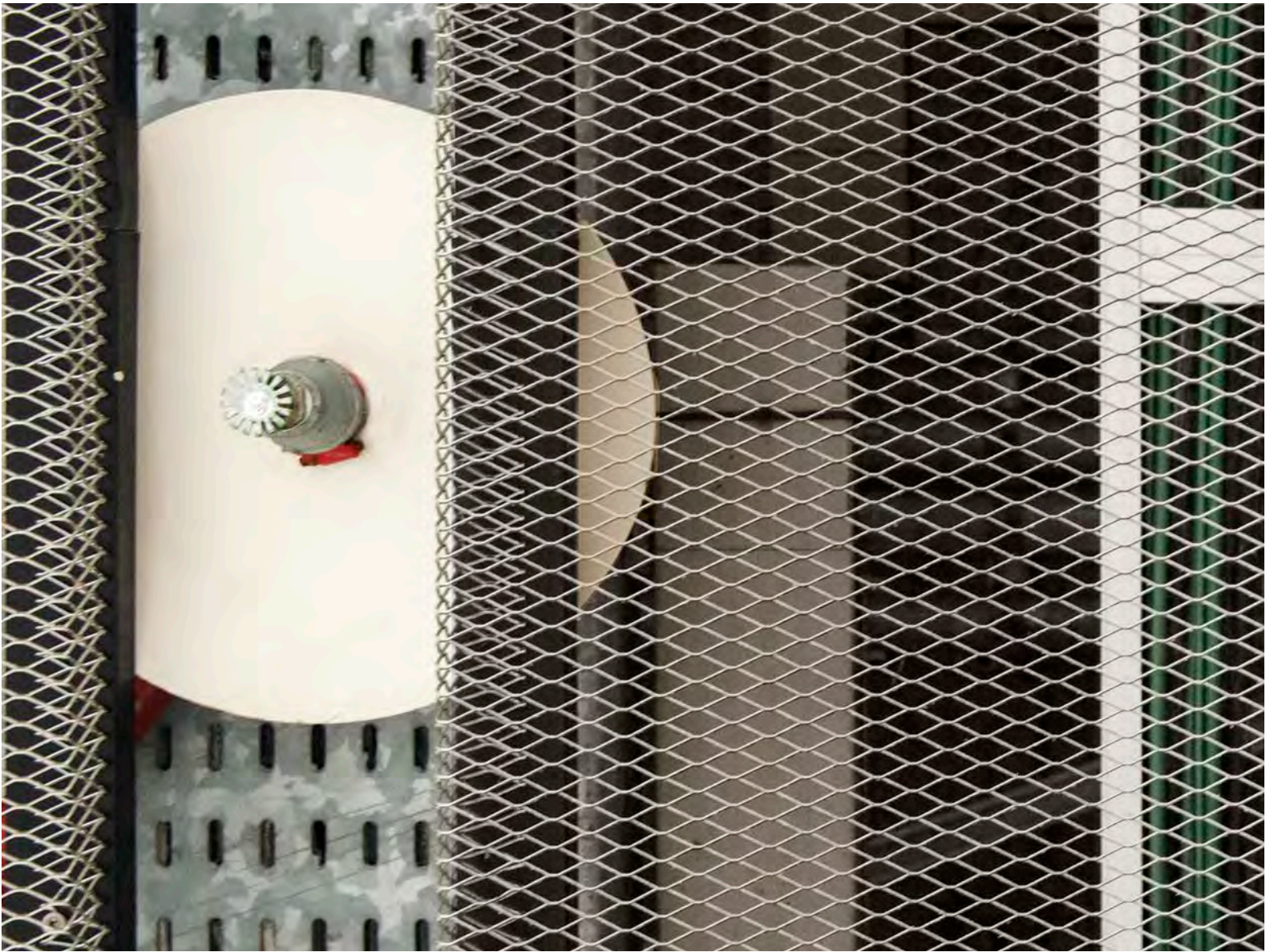
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金屬擴張網

Expanded Metal

運用金屬與非金屬材質、整平與軋壓工序、多樣化的表面處理，上鎧鋼鐵對擴張網有了嶄新的詮釋——「穩固安全」、「過濾通透」、「綠化節能」、「變化彈性」。不同於以往，上鎧鋼鐵的擴張網能更廣泛地應用在各個產業。我們對原料、製作環節與細節的執著，讓每一片交付予您的擴張網皆能確實發揮。

Today, expanded metal has proven to be extremely versatile. It works well with metal and nonmetal materials as acting as a reliable and eco-friendly solution with properties of permeability and flexibility. It is available in a variety of colors and finishes to suit any need. Combined with Shang Kai Steel's strict standards of quality control, only the best products are delivered to you.



穩固安全

金屬板經由等距拉撐形成擴張網，其扎實的力學載重結構，即使網目變形、破壞或被剪斷，依舊強穩堅固。相較於其他網材，金屬擴張網更可提供表面止滑的優勢，並可與非金屬材質啗合，如：玻璃、混泥土、塑膠……，以強化工程結構耐性、安全性與外觀完整性。

DURABILITY AND SAFETY

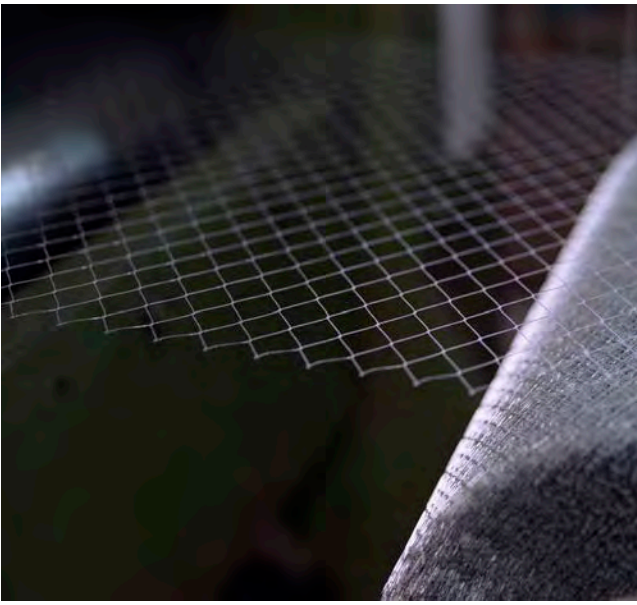
Expanded metal is made by uniformly piercing and stretching a single piece of metal, retaining its structural integrity that can withstand breakage and damage. The meshes produced by our manufacturing process gives the surface of expanded metal better grip. This property is ideal for anti-slip walkways. The combination of expanded metal with glass, concrete or plastic can create a stronger structure.

過濾通透

金屬擴張網的孔狀結構，在通透性上提供最佳優勢。不同尺寸的擴張網可應用於各領域：安全護欄與建築圍欄可保護隱私、減少陽光直接照射；架設於機場跑道兩旁整齊劃一的擴張網，可引導飛機起飛時所造成的混亂氣流。此外，孔洞細密精緻的擴張網可應用於雜質過濾器內，經由電化學原理或結合其他材料形成耐用與穩定性高的理想過濾網。

PERMEABILITY AND FILTRATION

The diamond-shaped apertures in expanded metal can yield different levels of permeability depending on their size. It can provide privacy and diffuse light while still letting in air. The expanded metal on airport runways can safely disperse the airflow because of its air filtering effects. On a smaller scale, fine expanded metal mesh can filter impurities through electrochemical filtration or in combination with other materials. Its durability and metallic properties make it an ideal filter.



綠化節能

使用寬網目之擴張網於建築空間，網面傾斜角度可阻擋陽光直接照射，減少建築內部日照輻射，降低溫度。除了節省能源外，經過測試，可讓藤蔓植物攀爬其上淨化空氣，美化建築外觀；更因擴張網於生產過程無廢料產生，使其成爲綠建築指標建材。

ECO-FRIENDLY AND ENERGY SAVING

Expanded metal is manufactured in an environmentally conscious way, using the entirety of the material to ensure nothing is wasted. Wide-strand expanded metal can be used in architecture to filter sunlight in specific angles and patterns to reduce solar radiation entering the building. It acts as both a barrier and insulator and saves energy by maintaining the interior temperature. It is also an excellent structure for vines and other climbing plants to grow on. These qualities make the expanded metal an excellent material in the construction of green buildings.

變化彈性

運用擴張網勻稱的孔洞，搭配不同金屬的特性，擴張網目可無限連續拼接、彎曲各種角度。由於拼接大範圍、彎曲角度需要產品高度一致性，上鎧鋼鐵毫不妥協地提供幾近零誤差金屬擴張網，配合建築師、設計師盡情揮灑創意。

VERSATILITY AND FLEXIBILITY

Expanded metal is capable of covering areas small and large, straight and curved. The static pattern, coupled with the characteristics of different types of metal, resulting in a seamless appearance. Expanded metal can adapt to the clients' needs, in terms of various functions or designs. To guarantee a perfect fit, the cut of the metal must be consistently precise. Shang Kai Steel employs the highest standards in manufacturing products to make sure we stand out from the rest.

表面處理

擴張網的材質豐富多樣，金屬類如：鋼鐵、不銹鋼、鋁、鈦、鎳、銅……，非金屬類如：紙、塑膠……。因應材質特性有多種表面加工法可供選擇，如：熱浸鍍鋅、金屬電鍍、液體塗裝、烤漆處理或塑膠被覆等。經表面加工處理後的擴張網更經久耐用，具抗腐蝕性，搭配豐富的色彩選擇，使擴張網應用變化無窮、想像無限！

COATING AND COLOR

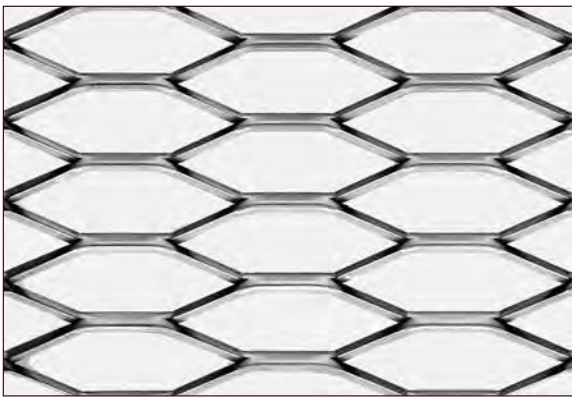
Expanded metal can be made from various metal materials such as steel, stainless steel, aluminum, titanium, nickel, and copper as well as nonmetal materials, such as paper, plastic, etc. The surface of all these possible can be coated in number of ways such as galvanizing, anodizing aluminum, positive electrode, PVC metallic coating, powder coating, and liquid coating. After the coating process, the material becomes more durable and resistant to corrosion. The surface can also be presented in a spectrum of colors, adding to its usability and ability to realize the client's imagination.

XG型號

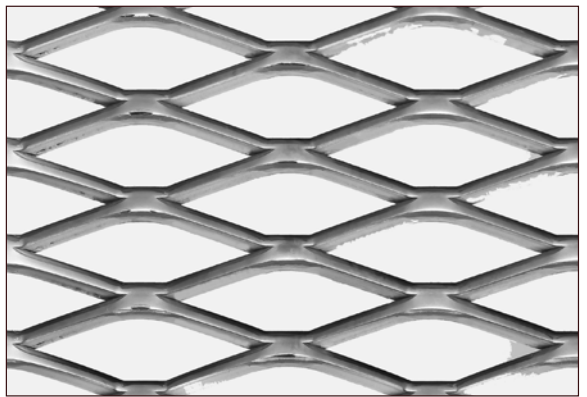
XG type

符合國際規範的 XG 型號是堅固耐用的經典擴張網，廣泛地被運用在世界各地各項公共工程中。上鎧鋼鐵針對要求極高的專案工程，使用高強度和高韌性的台灣中鋼一級鋼品，打造出尺寸與外形接近完美零誤差的 XG，是同型號擴張網的典範，廣受所有工程專業人士擁戴。

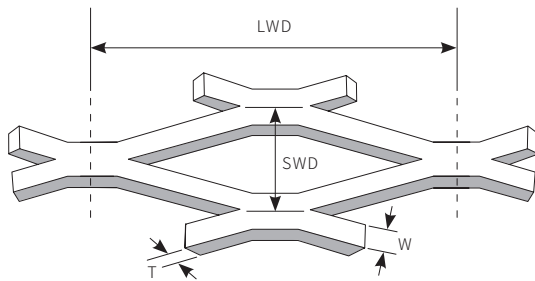
Complying with the international standards (CNS/JIS/BSI), Shang Kai Steel's XG Type is a quintessential expanded metal and is frequently used in public works worldwide because of its high standard of safety and reliability. Shang Kai Steel meets high-level requirements by producing XG Type with top quality materials from China Steel to present products in the specific size and dimensions of international specifications. Shang Kai Steel's XG Type expanded metal has become the model example of its type and the preferred choice for professionals.



XG 11

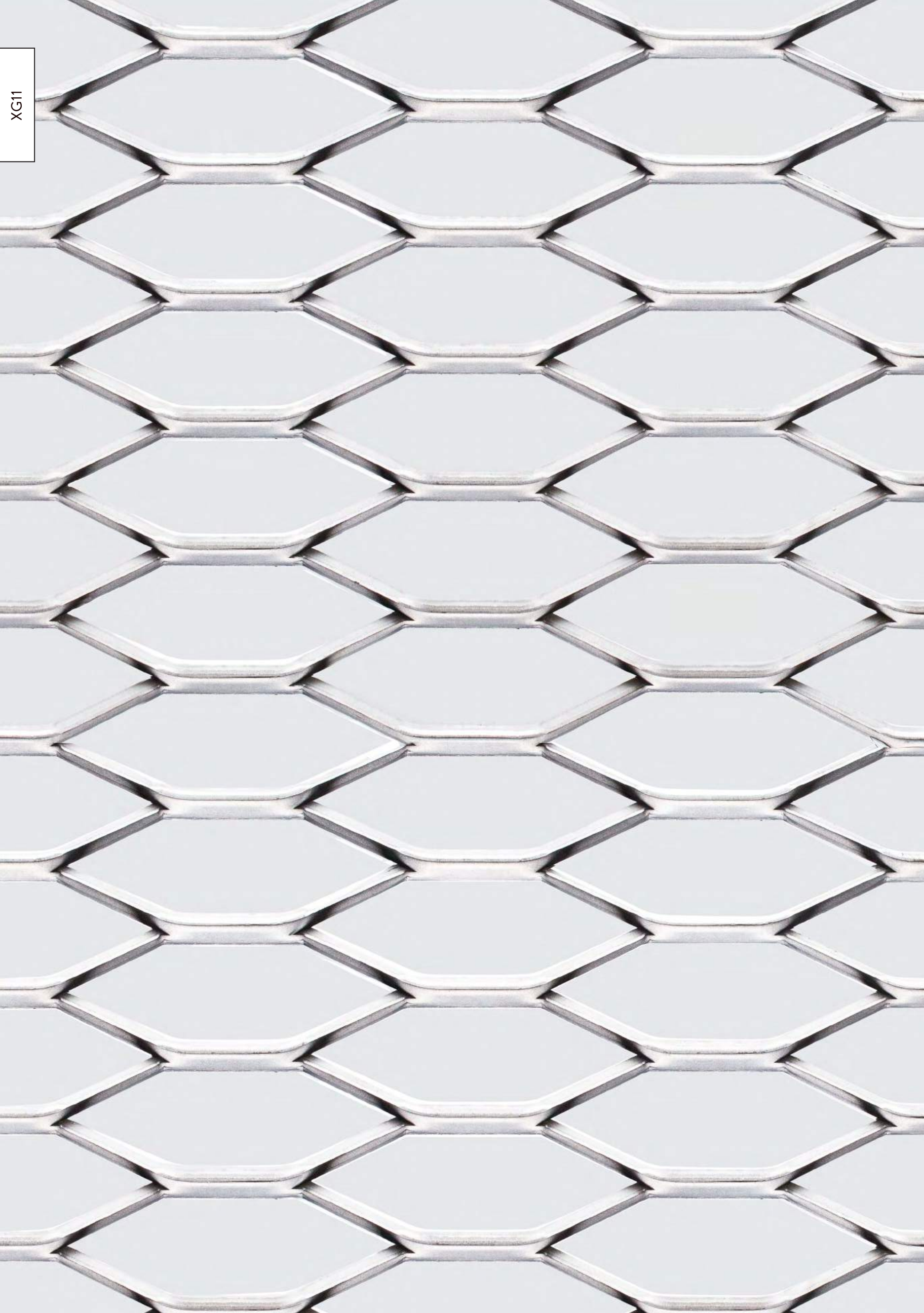


XG 21



本公司另可製造上述標準以外之產品，請聯絡我們。

We can also manufacture products other than the above specifications, please contact us for details.



XG11

製品規格表 Product Specifications

網目代號 Mesh ref.	網目尺寸 Mesh Size		網條尺寸 Strand Size		重量 Weight kg/m ²	標準製品尺寸 Standard Size	參考重量 (公斤/片) Ref Weight (kg/sheet)	
	SWD	LWD	T	W			1220x2440	1525x3050
XG11	34	135.4	4.5	7.0	14.5	24.2	43.1	67.4
XG12	34	135.4	6.0	7.0	19.4	32.4	57.7	90.1
XG13	34	135.4	6.0	9.0	24.9	41.6	74.0	116.0
XG14	34	135.4	8.0	9.0	33.2	55.5	98.7	154.0
XG21	36	101.6	4.5	7.0	13.7	22.9	40.7	63.6
XG22	36	101.6	6.0	7.0	18.3	30.6	54.4	85.0
XG23	36	101.6	6.0	9.0	23.6	39.5	70.1	110.0
XG24	36	101.6	8.0	9.0	31.4	52.5	93.3	146.0

我們可製造符合CNS, JIS, BS,ASTM, AS之國際擴張網標準規範尺寸。
We can also manufacture products from CNS, JIS, BS,ASTM, AS Expanded Metal specifications, please contact us for details.

鋼鐵走道網目：載荷 / 跨距表 Steel Walk Way Meshes: Load / Span Table

走道網目代號 Walkway mesh ref.	載荷型態 Type of Loads (KN/m ²)	單重點跨距 Simple Span			兩重點跨距 Double Span			三重點跨距 Triple Span		
		600	900	1200	300	450	600	200	300	400
XG11	均佈載荷 Uniform Load	4.90	2.25	1.22	20.00	9.00	5.21	43.85	21.40	12.14
XG21	集中載荷 Point Load	1.10	0.74	0.54	2.50	1.68	1.27	4.00	2.68	2.04
XG12	均佈載荷 Uniform Load	5.80	2.90	1.73	23.80	10.70	6.10	51.00	25.40	14.60
XG22	集中載荷 Point Load	1.30	0.96	0.72	2.95	1.97	1.50	4.55	3.18	2.42
XG13	均佈載荷 Uniform Load	6.43	2.50	1.50	26.37	11.93	6.83	56.00	28.75	16.12
XG23	集中載荷 Point Load	1.44	0.85	0.64	3.30	2.22	1.68	5.06	3.56	2.70
XG14	均佈載荷 Uniform Load	8.20	3.65	2.02	33.80	15.30	8.66	70.00	36.10	20.50
XG24	集中載荷 Point Load	1.08	1.22	0.92	4.20	2.80	2.12	6.40	4.56	3.45
XG63	均佈載荷 Uniform Load	不推薦 Not Recommended			7.25	2.61	1.82	19.13	8.50	4.78
	集中載荷 Point Load	不推薦 Not Recommended			1.32	0.53	0.44	1.43	0.96	0.72

- 本表既定的載荷容量為預設 1.4 倍安全因素使其永久不變形的最大載荷量，倘若容許許永久變形則可增加 40%。
- 本表適用基本條件為以 LWM 方向架設，四周點焊網條在支撐上及兩端裝置長度最少 25mm。
- 推舉跨距基數其假定偏差不得大於跨距 1/200。
- 表上所述跨距扣減兩端裝置長度 25mm 即是適用確實跨距。
- Load capacities given in the table are the heaviest loads that will cause no permanent deformation with safety factor of 1.4 times. If some permanent deformation is allowed, load can be increased by 40%.
- The load table is applicable based on spanning in LWM direction and spot-weld at every 4th stand on support and minimum 25 mm landing on both ends.
- Spans are recommended based on assumption that deflection is not greater than 1/200 span.
- Spans stated in table are nominal. Clear spans are obtained by deducting 25mm landing on both ends.

XG 施工法
XG installation Method

配置方法

將擴張網長邊網目之方向 (LWD) 與跨距 (Span) 方向一致予以安全 (參照圖 1 及圖 2)。

接縫

擴張網承受載重後在其網目產生之應力分布情形推定如圖 2，因此在長度方向須連接之 2 張板子尾端則如圖 3 所示予以對接焊接或如圖 4 所示予以搭接焊接，但板子之鄰接最少須相疊一個網目。當擴張網需在 SWD(短邊網目) 連接之時，其網目必須配置完整成為一直線且各網條斜角之方向均一致 (參照圖 5)。

安裝

當將擴張網之側緣安裝並焊接在鋼樑或型鋼時，須如圖 6 (a)、(b)、(c) 所示予以焊接，而依據使用狀況每隔兩個網目或四個網目點焊亦可 (參照圖 1)。但是交通頻繁場所、恐受衝擊場所、振動劇烈場所，則將全部網目予以焊接較為安全。

DIRECTION ARRANGEMENT

Arrange direction of XG long way of mesh (LWD) to conform to span direction. (See Fig. 1 & Fig. 2).

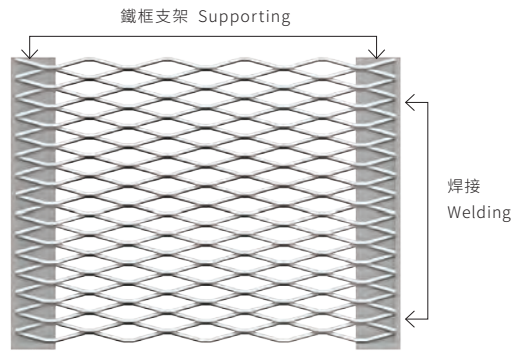
JOINTING

Distribution of load produced in the mesh by a working load on expanded metal is presumed as in Fig.2. Therefore, for jointing two sheets together there are 2 standard methods as below: Sheet joined by butt welding (See Fig.3). Sheet joined by overlapping and welding for at least on mesh (See Fig.4). When Joining XG (Walkway grating type) in SWD (Short way of mesh) direction, arrange meshes in a straight line and in a direction of angle of each strand in the same way (See Fig.5).

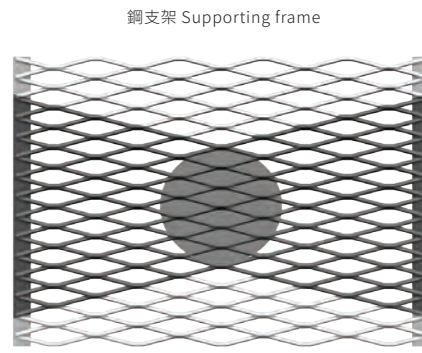
INSTALLATION

When fixing the side of expanded metal and welding to the steel beams or steel sections, weld the side as shown in Fig. 6-a.b.c. According to different application conditions, the weld spot may be at every 2 meshes or 4 meshes (See Fig.1). However, for safety concerns, it is advised to have weld spots on every mesh for heavy shocks strong vibration and busy traffics applications.

(圖1) Fig. 1

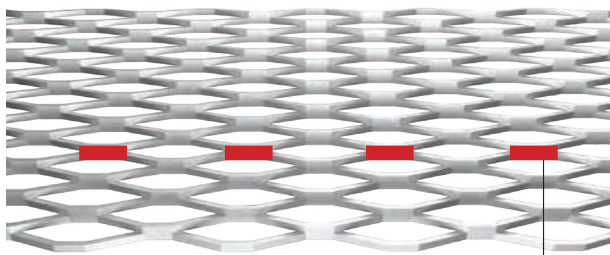


(圖2) Fig. 2



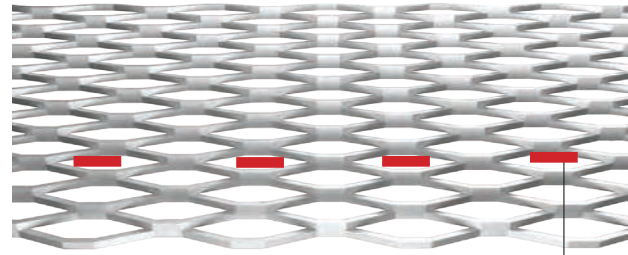
格子型網板配置方法 | Arrange direction for gratings

(圖3) Fig. 3



搭接焊接點 Joined part by overlap and weld

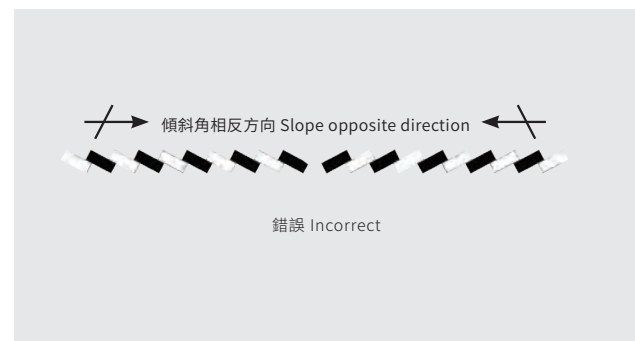
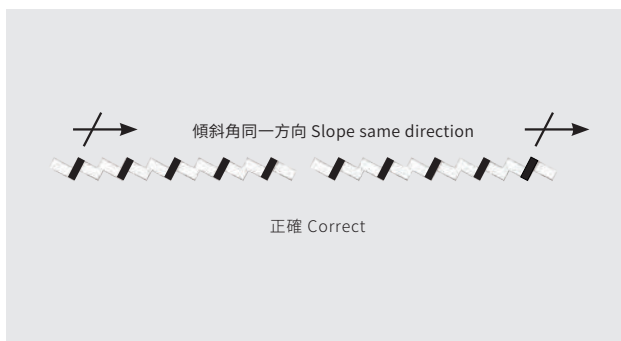
(圖4) Fig. 4



搭接焊接點 Joined part by overlap and weld

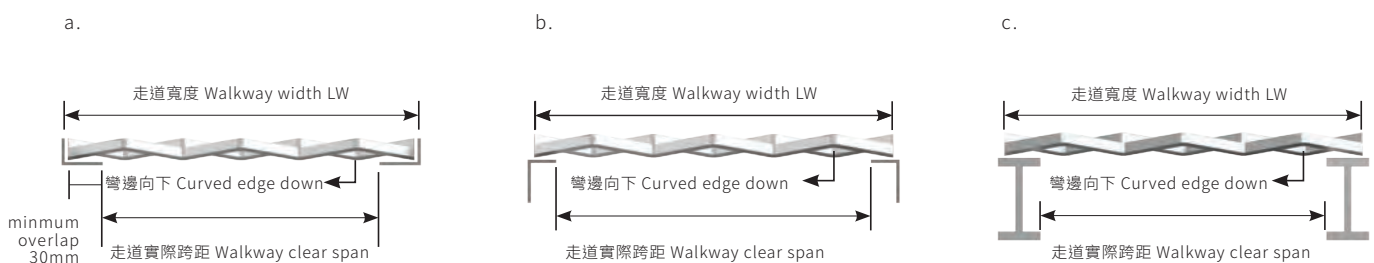
格子型網板以對接焊接 | Sheet joined by butt weld.

(圖5) Fig. 5



格子型網板配置方向 | Direction for placing grating.

(圖6) Fig. 6



子型網板頂部與底部安裝方法 | Installation for top and bottom of sheet

屏東水管橋

Pingtung Water Pipeline Bridge

位於屏東縣東港鎮的「水管橋」，肩負著輸送、提供當地穩定水源的重任。上鎧鋼鐵嚴格依據國家安全 CNS 標準規範，打造出堅固耐用的 XG 型號擴張網，即使在最極端環境之下仍能扎實地確保維修人員的安全。設計上，針對施工的精確與便利性，裁切出精密無縫連結的 XG 型號擴張網。遠觀、近看，都能感受到每個細節的一絲不苟。

Located in Pingtung County, the water pipeline bridge reliably transports water resources. Complying with Chinese National Standards, Shang Kai Steel developed XG Type expanded metal, which is dependable even in extreme circumstances to ensure the safety of maintenance staff. We reduced the installation time by preparing each section of expanded metal with precision. No matter which way you look at the bridge, you may appreciate our meticulous attention to details.

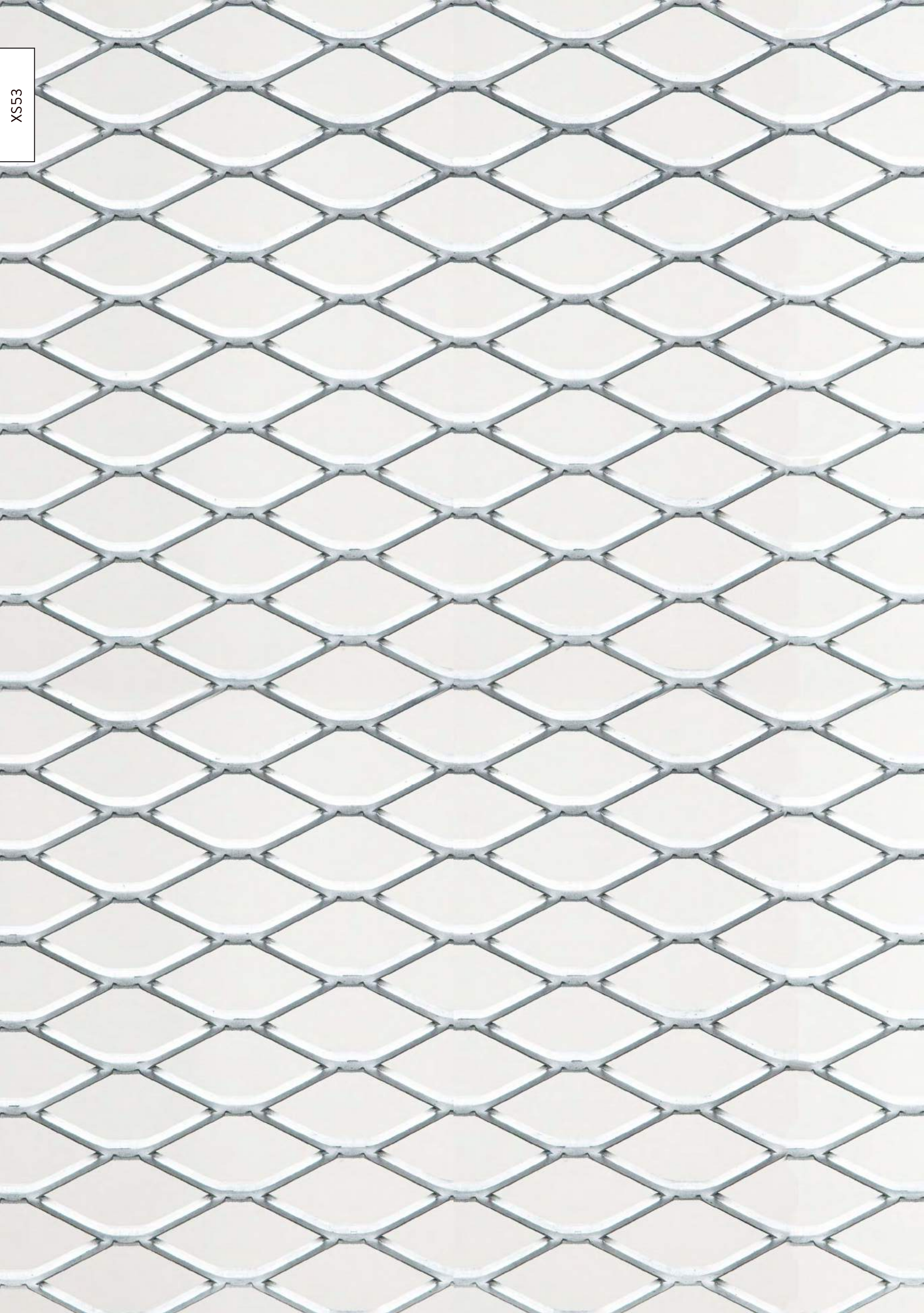


XS型號

XS type

符合一般規範的XS型號如同輕質型的XG，重量較輕但堅固依舊，功能與經濟實惠兼顧，為安全防护網的首選。上鎧鋼鐵精準裁切出的XS，提升安裝施工的便利性，因而廣泛地被應用於工業產業、汽車產業、設計產業與各種機械安全防护用途。

Shang Kai Steel's XS Type is a practical and cost-effective solution that comes in all XG sizes but more lightweight. It is often used as a safeguard of windows and around the perimeter of buildings. XS Type can be applied in industrial fields, such as the automotive industry, and can act as a barrier between people and machinery. Shang Kai Steel produces XS Type with consistently high quality, making it easy to implement in any environment.



XS53

XS

製品規格表 Product Specifications

網目代號 Mesh ref.	網目尺寸 Mesh Size		網條尺寸 Strand Size		重量 Weight kg/m ²	標準製品尺寸 Standard Size 915x1890	參考重量 (公斤/片) Ref Weight (kg/sheet)	
	SWD	LWD	T	W			1220x2440	1525x3050
XS31	12	30.5	1.2	1.5	2.36	3.95	7.01	10.96
XS32	12	30.5	1.6	2.0	4.19	7.01	12.50	19.46
XS33	12	30.5	2.3	3.0	9.03	15.10	26.80	41.94
XS41	22	50.8	1.6	2.0	2.28	3.81	6.78	10.59
XS42	22	50.8	2.3	2.5	4.10	6.86	12.20	19.04
XS43	22	50.8	3.2	3.5	8.00	13.40	23.80	37.16
XS51	25	61.0	1.6	2.5	2.15	4.20	7.46	9.99
XS52	25	61.0	2.3	3.0	4.33	7.24	12.90	20.11
XS53	25	61.0	3.2	4.0	8.05	13.50	23.90	37.39
XS61	34	76.2	2.3	3.0	3.19	5.33	9.48	14.82
XS62	34	76.2	3.2	4.0	5.91	9.88	17.60	27.45
XS63	34	76.2	4.5	5.0	10.40	17.43	30.90	48.31
XS71	50	152.4	2.3	3.5	2.53	4.23	7.52	11.75
XS72	50	152.4	3.2	4.0	4.02	6.72	11.92	18.67
XS73	50	152.4	4.5	5.0	7.06	11.80	21.00	32.79

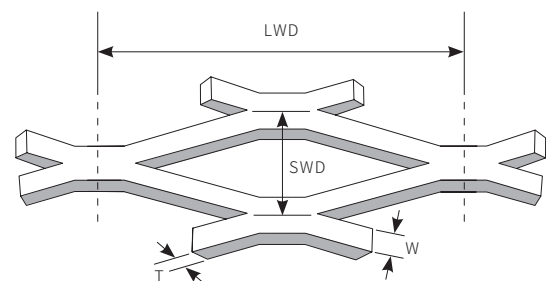
尺寸單位 – 公釐 Units in mm

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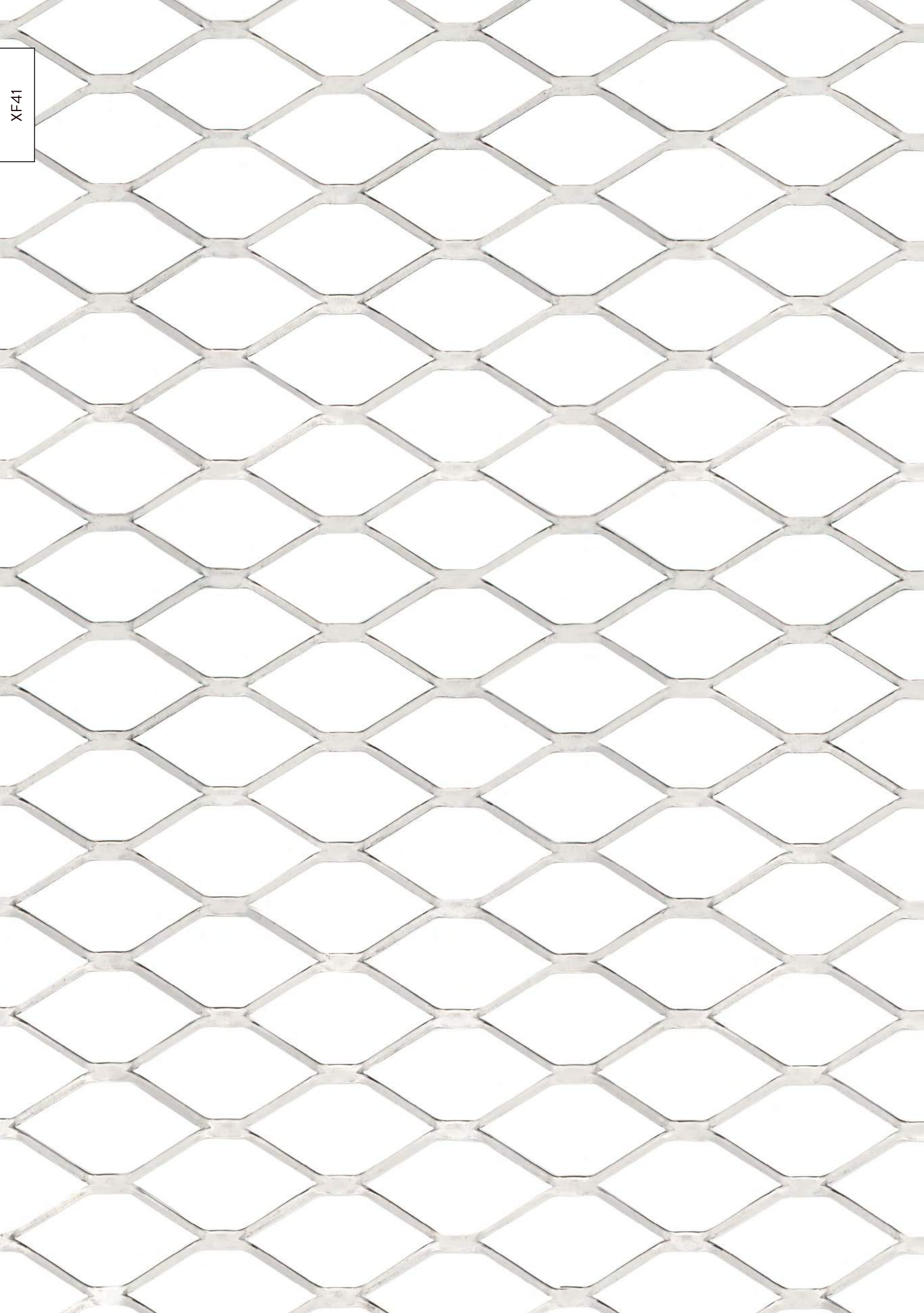


XF型號

XF type

有別於其他型號的金屬擴張網表面起伏狀，XF型號表面經由軋平機將網條與網結壓平，使金屬網面平順，更方便塗料、與其他材質結合，例如：應用於空氣過濾機內與過濾棉黏合、置於防盜玻璃夾層中……。經由測試，可適用於XG、XS、SK以及超薄細網目等型號，代替沖孔網使用。

Different from other types of expanded metal, Shang Kai Steel's XF Type is manufactured by the same methods but it goes through an additional flattening process. This results in a level surface with no protrusions. The flat quality of XF Type makes it ideal for adhering to other materials for support. XF Type can be used in air filters with a foam and in reinforced glass which is made by incorporating XF Type between two panes of glass. XF Type can be made from XG, XS, SK, and Ultra Fine Mesh Type and is also a great substitute for perforated metal.



XF41

XF

製品規格表 Product Specifications

網目代號 Mesh ref.	網目尺寸 Mesh Size		軋平後網條尺寸 Strand Size After Flattned	
	SWD	LWD	T	W
XF31	12	30.5	1.2	1.5
XF32	12	30.5	1.6	2.0
XF33	12	30.5	2.3	3.0
XF41	22	50.8	1.6	2.0
XF42	22	50.8	2.3	2.5
XF43	22	50.8	3.2	3.5
XF51	25	61.0	1.6	2.5
XF52	25	61.0	2.3	3.0
XF53	25	61.0	3.2	4.0
XF61	34	76.2	2.3	3.0
XF62	34	76.2	3.2	4.0
XF71	50	152.4	2.3	3.5

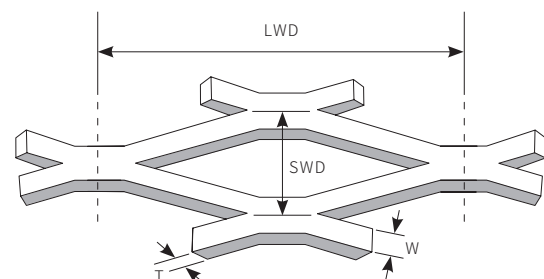
尺寸單位 – 公釐 Units in mm

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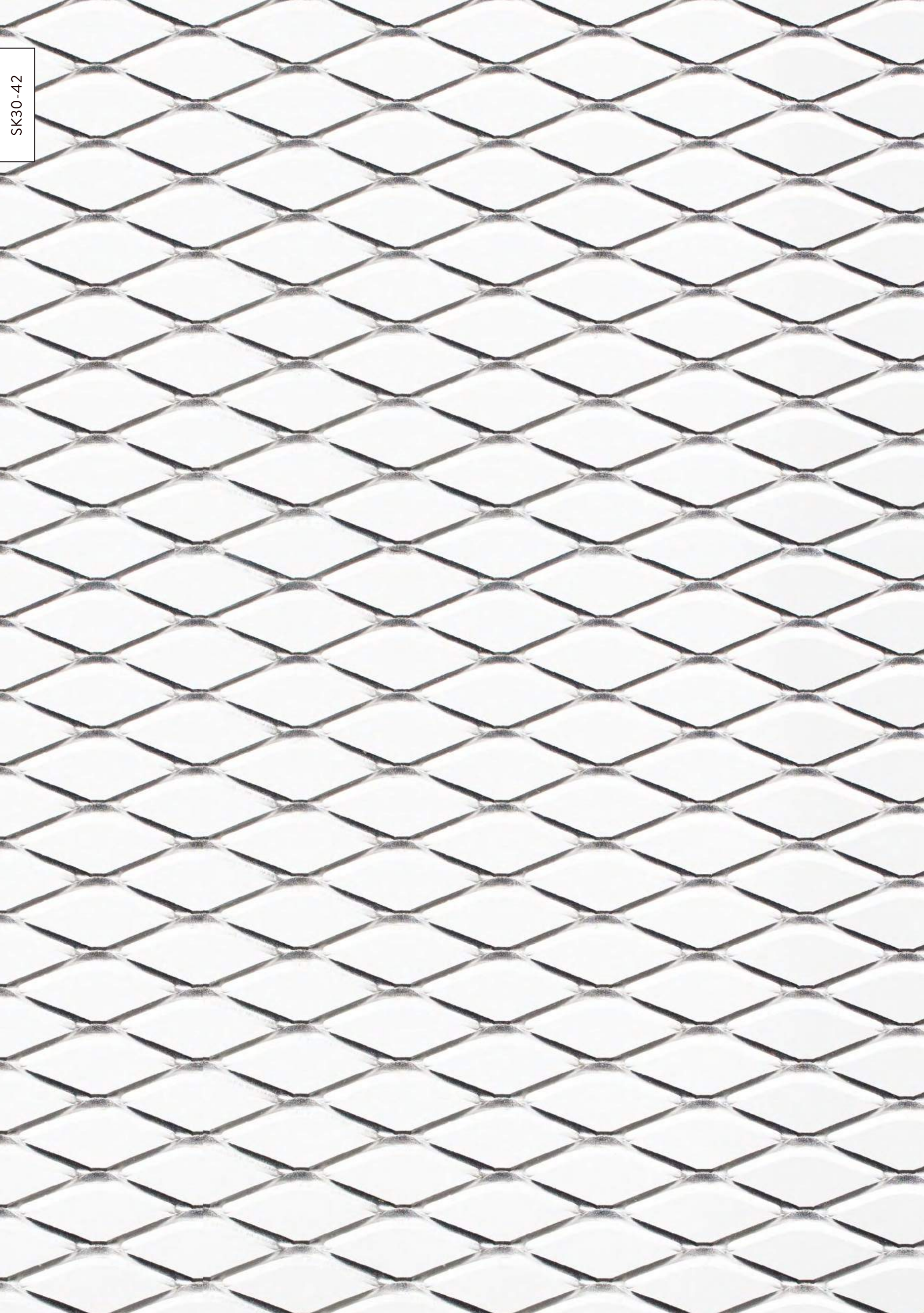


SK型號

SK type

上鎧鋼鐵SK系列是完全為客戶量身打造的擴張網，不同於國際規範標準型擴張網，從尺寸、材質、表面處理皆以單一工程與設計需求作為參照標準。上鎧鋼鐵SK系列在型式上包羅萬象，製程的嚴謹卻是如出一轍。

Shang Kai Steel's SK Type is customized designed. Clients can choose the material, dimensions, and finish that fit the requirements of their projects. All variations of SK Type are produced with the utmost precision and quality.



SK30-42

SK

製品規格表 Product Specifications

網目代號 Mesh Ref.	網目尺寸 Mesh Size		網條尺寸 Strand Size	
	SWD	LWD	T	W
SK0306	3.0	6.0	0.3~0.8	0.6~1.2
SK0510	5.0	10.0	0.5~1.0	0.6~1.4
SK0610	6.0	10.0	0.5~1.0	0.6~1.4
SK0714	7.0	14.0	0.5~1.2	0.5~1.6
SK0813	8.0	13.0	0.5~1.2	0.5~1.6
SK0816	8.0	16.0	0.5~1.2	0.5~1.6
SK5508	5.5	8.0	0.5~0.8	0.6~1.2
SK0820	8.0	20.0	0.5~1.2	0.5~1.6
SK0929	9.0	29.0	0.8~2.0	0.8~2.3
SK1020	10.0	20.0	0.5~2.3	0.8~3.0
SK1021	10.0	21.0	0.5~2.3	0.8~3.0
SK1122	11.0	22.0	0.5~2.3	0.8~3.0
SK1230	12.0	30.5	0.5~2.3	0.8~3.0
SK1224	12.0	24.0	0.5~2.3	1.0~8.0

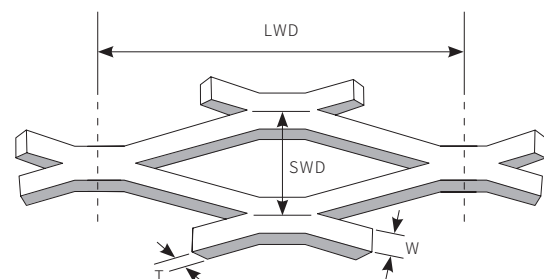
尺寸單位 – 公釐 Units in mm

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SK

製品規格表 Product Specifications

網目代號 Mesh Ref.	網目尺 Mesh Size		網條尺寸 Strand Size	
	SWD	LWD	T	W
SK1424	14.0	24.0	0.5~2.3	0.8~3.0
SK1632	16.0	32.0	0.5~2.3	0.8~3.0
SK1728	17.0	28.0	0.5~2.3	0.8~3.0
SK1838	18.0	38.0	1.0~3.0	1.0~10.0
SK2038	20.0	38.0	1.0~3.0	1.0~10.0
SK2250	22.0	50.0	1.0~3.0	1.0~10.0
SK2257	22.0	57.0	1.0~3.0	1.0~10.0
SK2550	25.0	50.0	1.0~3.0	1.0~10.0
SK2561	25.0	61.0	1.0~3.0	1.0~10.0
SK3061	30.0	61.0	1.0~3.0	1.0~10.0
SK1676	16.0	76.0	1.0~3.0	1.0~10.0
SK2575	25.0	75.0	1.0~3.0	1.0~10.0
SK3075	30.0	75.0	1.0~3.0	1.0~10.0

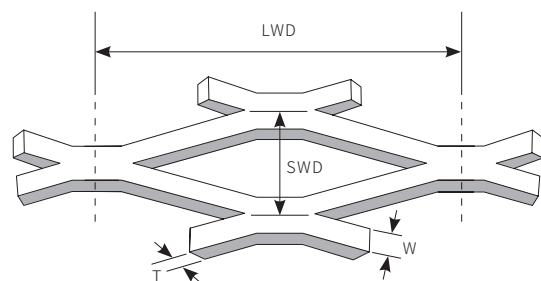
尺寸單位 - 公釐 Units in mm

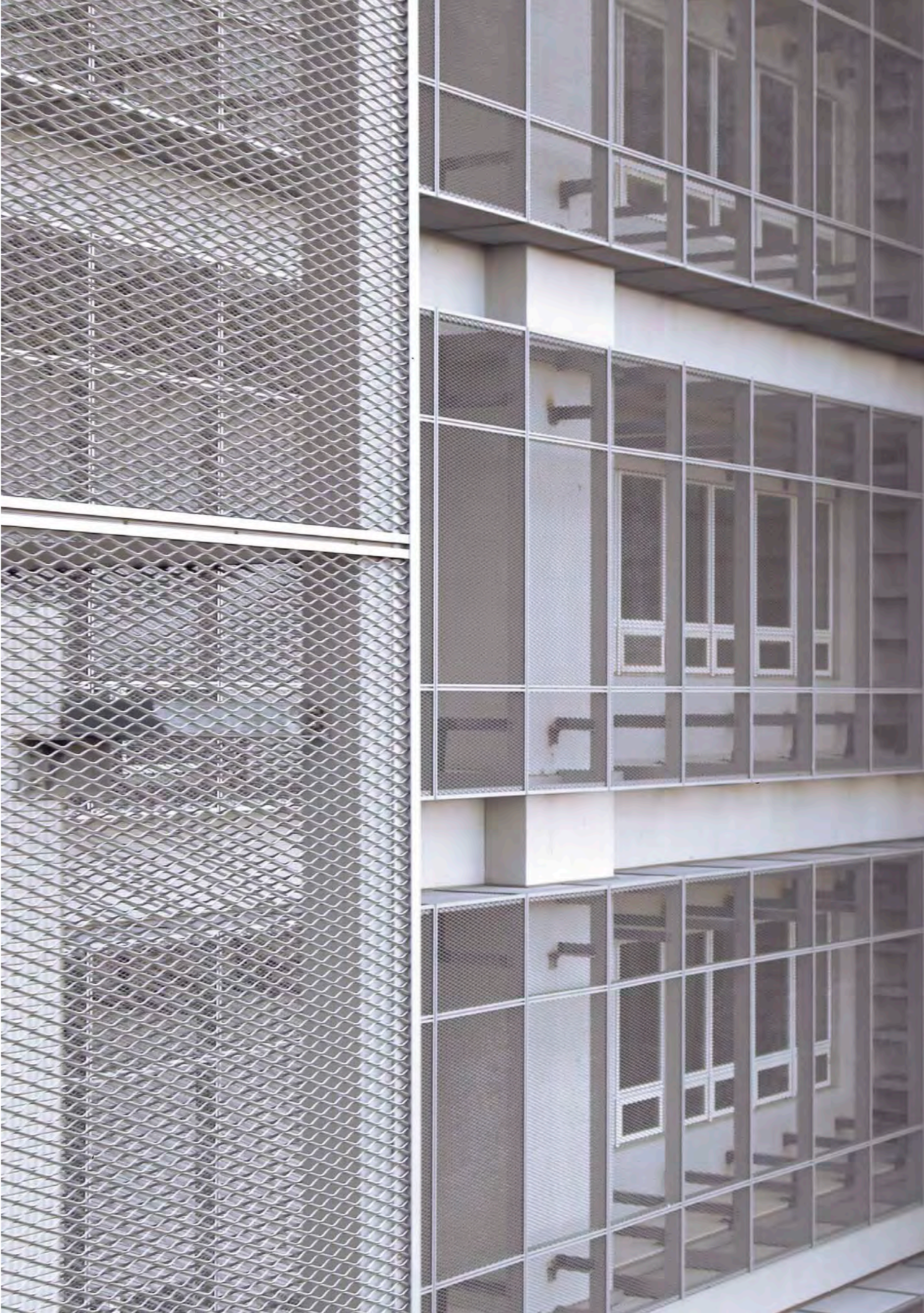
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製品規格表 Product Specifications

網目代號 Mesh Ref.	網目尺 Mesh Size		網條尺寸 Strand Size		重量 Weight
	SWD	LWD	T	W	kg/m ²
SKWK 50075	25.0	75.0	5.0	7.5	23.50
SKWK 50105	30.0	75.0	5.0	10.5	27.50
SKWK 30080	30.0	75.0	3.0	8.0	12.55
SKWK 50080	42.0	135.0	5.0	8.0	14.95
SKWK 50110	45.0	135.0	5.0	11.0	19.50
SKWK 60075	25.0	75.0	6.0	7.5	28.20
SKLM 1063	16.0	76.0	1.0	6.3	7.49
SKLM 1563	16.0	76.0	1.5	6.3	10.40
SKMM 3035	22.0	57.0	3.0	3.5	7.30
SKMM 3045	35.0	76.0	3.0	4.5	6.60
SKMM 3060	42.0	115.0	3.0	6.0	8.00
SKMM 3030	50.0	152.0	3.0	3.0	2.83
SKMM 3050	50.0	152.0	3.0	5.0	4.71
SKMM 5050	50.0	152.0	5.0	5.0	7.05
SKMM 3075	75.0	200.0	3.0	7.5	5.20

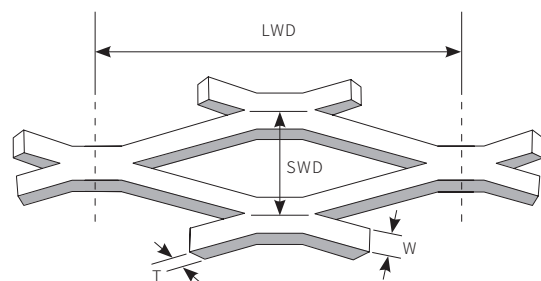
尺寸單位 – 公釐 Units in mm

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鋼鐵走道網目：載荷 / 跨距表 Steel Walk Way Meshes: Load / Span Table

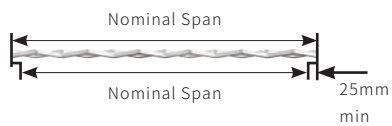
走道網目代號 Walkway mesh Ref.	載荷型態 Type of Loads (KN/m2)	單重點跨距 Simple Span			兩重點跨距 Double Span			三重點跨距 Triple Span		
		600	900	1200	300	450	600	200	300	400
SK50075	均佈載荷 Uniform Load	5.80	2.50	1.50	23.80	10.70	6.10	51.00	25.40	14.60
SK50110 A	集中載荷 Point Load	1.30	0.85	0.64	2.95	1.97	1.50	4.55	3.18	2.42
SK50105	均佈載荷 Uniform Load	8.20	3.65	2.02	33.80	15.30	8.66	70.00	36.10	20.50
SK60075 A	集中載荷 Point Load	1.80	1.22	0.92	4.20	2.80	2.12	6.40	4.56	3.45
SK50080	均佈載荷 Uniform Load	4.90	2.25	1.22	20.00	9.00	5.21	43.85	21.40	12.14
SK5075A	集中載荷 Point Load	1.10	0.74	0.54	2.50	1.68	1.27	4.00	2.68	2.04
SK500110	均佈載荷 Uniform Load	6.43	2.90	1.73	26.73	11.93	6.83	56.00	28.75	16.12
	集中載荷 Point Load	1.44	0.96	0.72	3.30	2.22	1.68	5.06	3.56	2.70
SK30080	均佈載荷 Uniform Load	不推薦 Not Recommended			7.25	2.61	1.82	19.13	8.50	4.78
	集中載荷 Point Load	不推薦 Not Recommended			1.32	0.53	0.44	1.43	0.96	0.72

尺寸單位 - 公釐 Units in mm

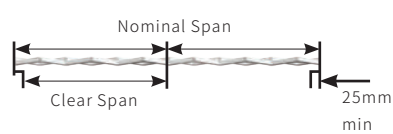
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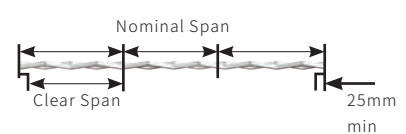
單重點跨距 Simple Span



二重點跨距 Double Span

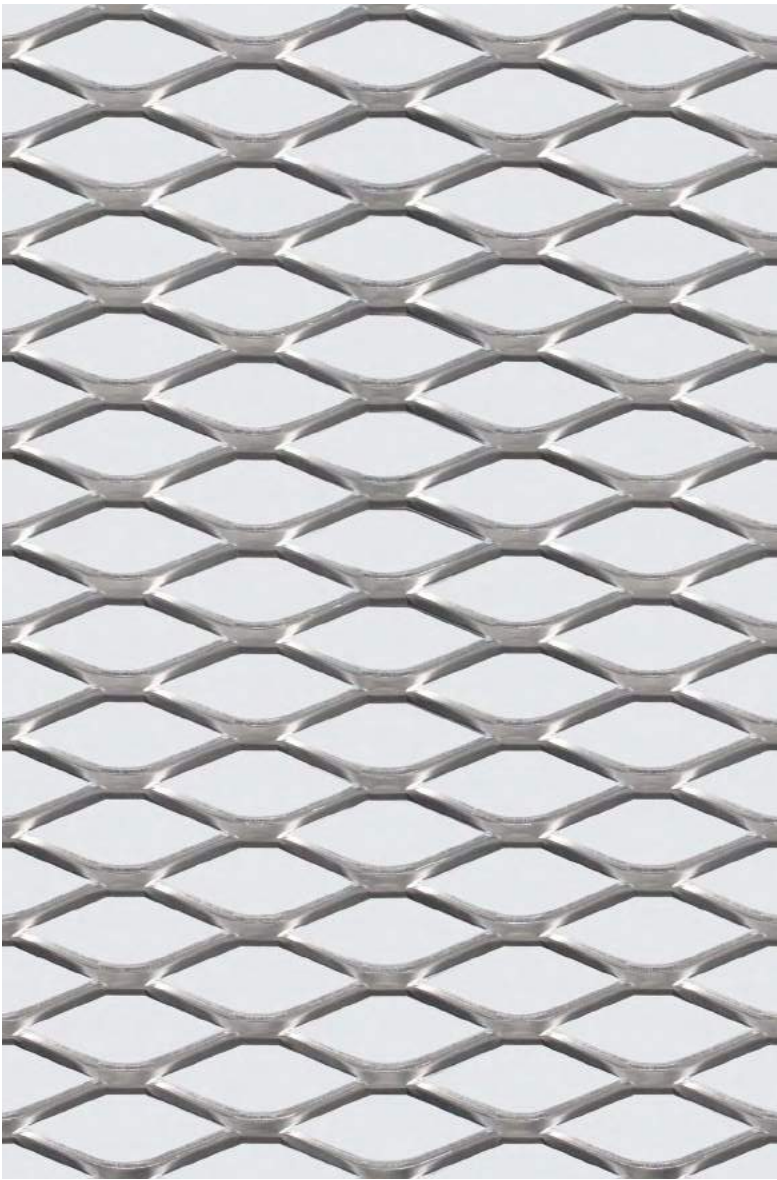


三重點跨距 Triple Span



- 本表既定的載荷容量為預設 1.4 倍安全因素使其永久不變形的最大載荷量，倘若容許少許永久變形則可增加 40%。
- 本表適用基本條件為以 LWM 方向架設，四周點焊網條在支撐上及兩端裝置長度最少 25mm。
- 推舉跨距基數其假定偏差不得大於跨距 1/200。
- 表上所述跨距扣減兩端裝置長度 25mm 即是適用確實跨距。

- Load capacities given in the table are the heaviest loads that will cause no permanent deformation with safety factor of 1.4 times. If some permanent deformation is allowed, load can be increased by 40%.
- The load table is applicable based on spanning in LWM direction and spot-weld at every 4th stand on support and minimum 25 mm landing on both ends.
- Spans are recommended based on assumption that deflection is not greater than 1/200 span.
- Spans stated in table are nominal. Clear spans are obtained by deducting 25mm landing on both ends.



SK 3034

SK 2151

SK 2015





台中創新園區

Central Taiwan Innovation
& Research Park

環繞「經濟部中台灣創新園區」建築四面的層狀帷幕，正是由上鍍鋼鐵 SK 型號擴張網排列而成。九典聯合建築事務所不僅利用孔洞結構引入自然光源，更巧妙善用鋁合金擴張網的傾斜面阻擋輻射、吸收熱能以降低室內溫度，加上多項融合環境的設計特點，最終獲得綠建築標章最高認證。在合作的過程當中，我們與營建廠商不斷激盪火花：如何在提升 SK 型號擴張網最大效能的同時，也滿足建築師精心安排的視覺饗宴。

Environmental impacts were considered in all aspects of this building. Bio-architecture Formosana, an architectural firm known for their commitment to eco-friendly buildings, achieved the highest grade of Taiwan's green building label with this project. Shang Kai Steel collaborated with the architects and the construction company to come up with innovative solutions to the designs that have never been accomplished before. The building facade is composed of aluminum SK Type expanded metal, which can filter sunlight, reduce solar radiation and insulate the interior from heat and cold. By working together, Shang Kai Steel and the architects found a way to utilize SK Type to its full potential in design and function.







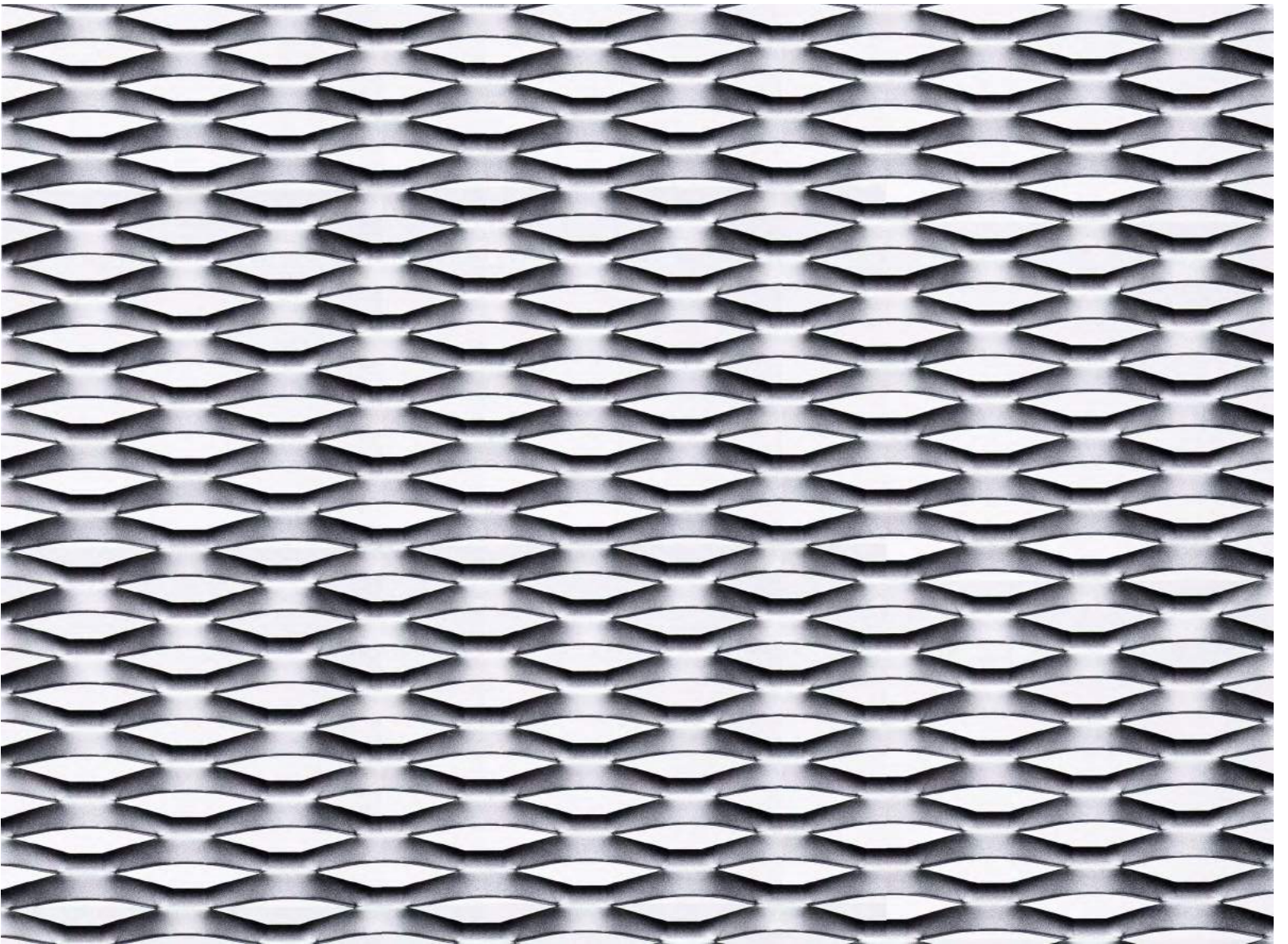
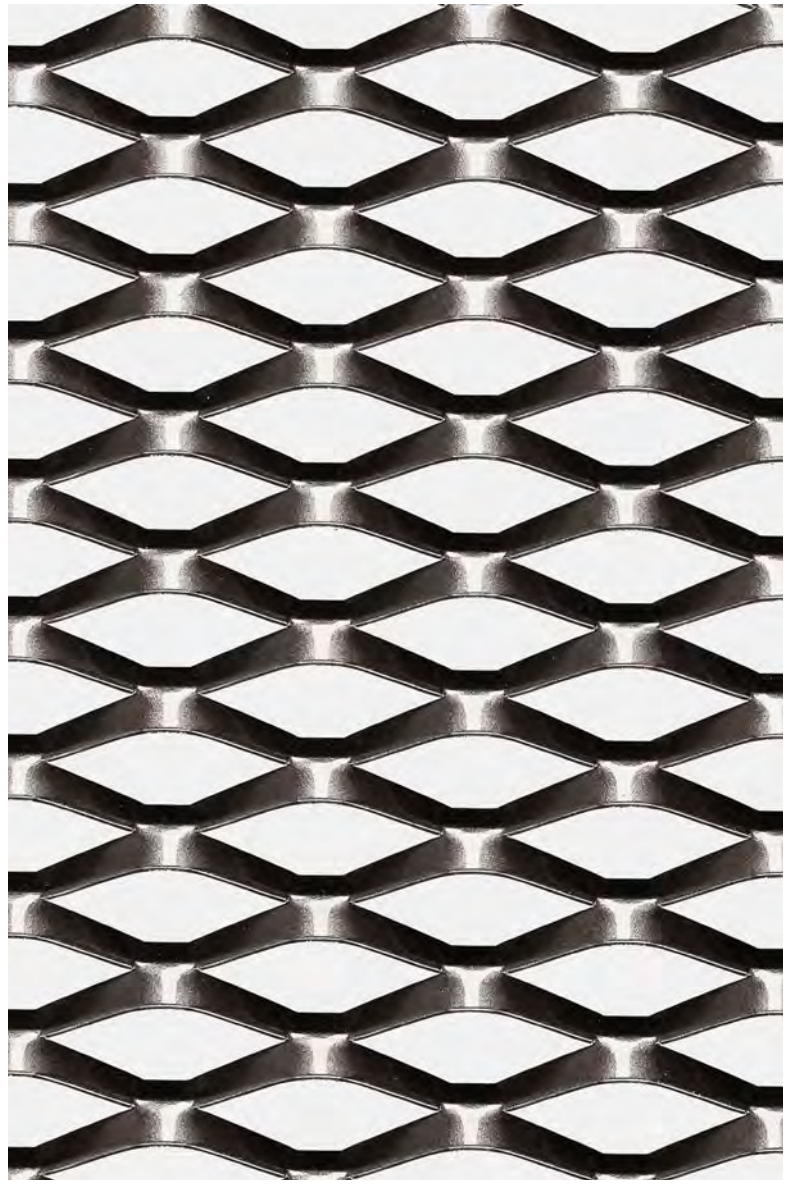
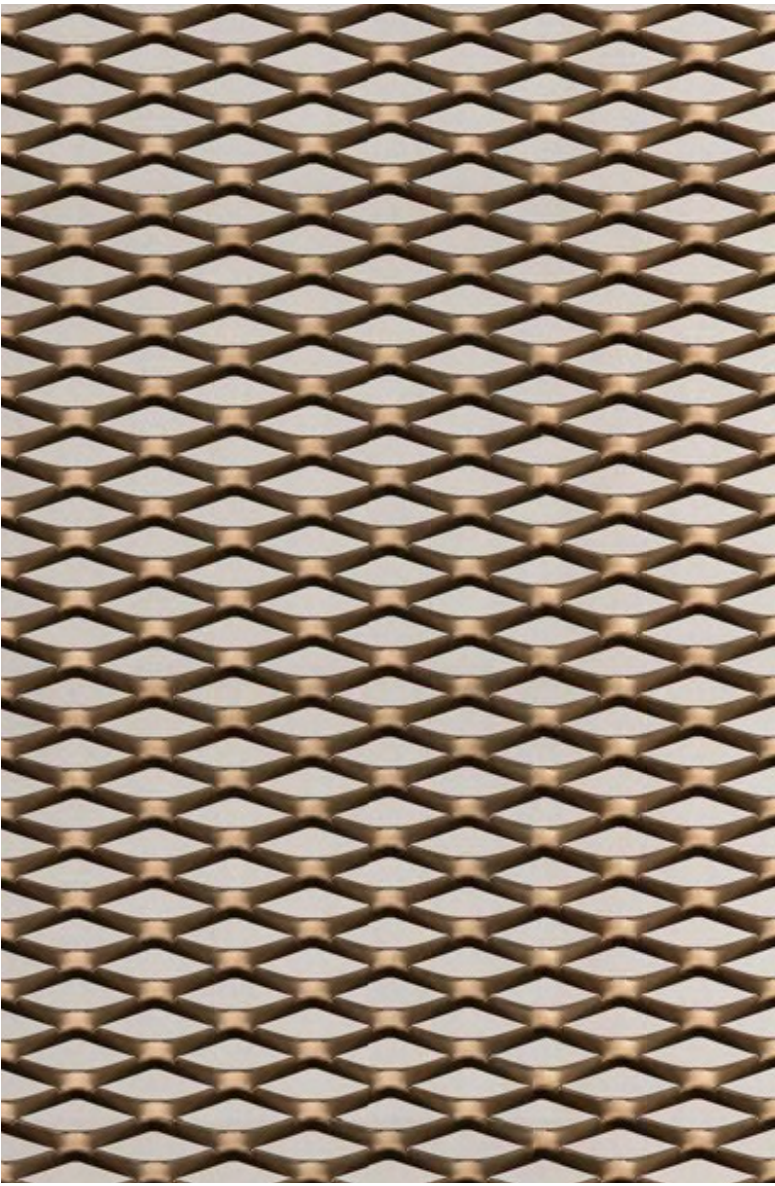
建築外觀網

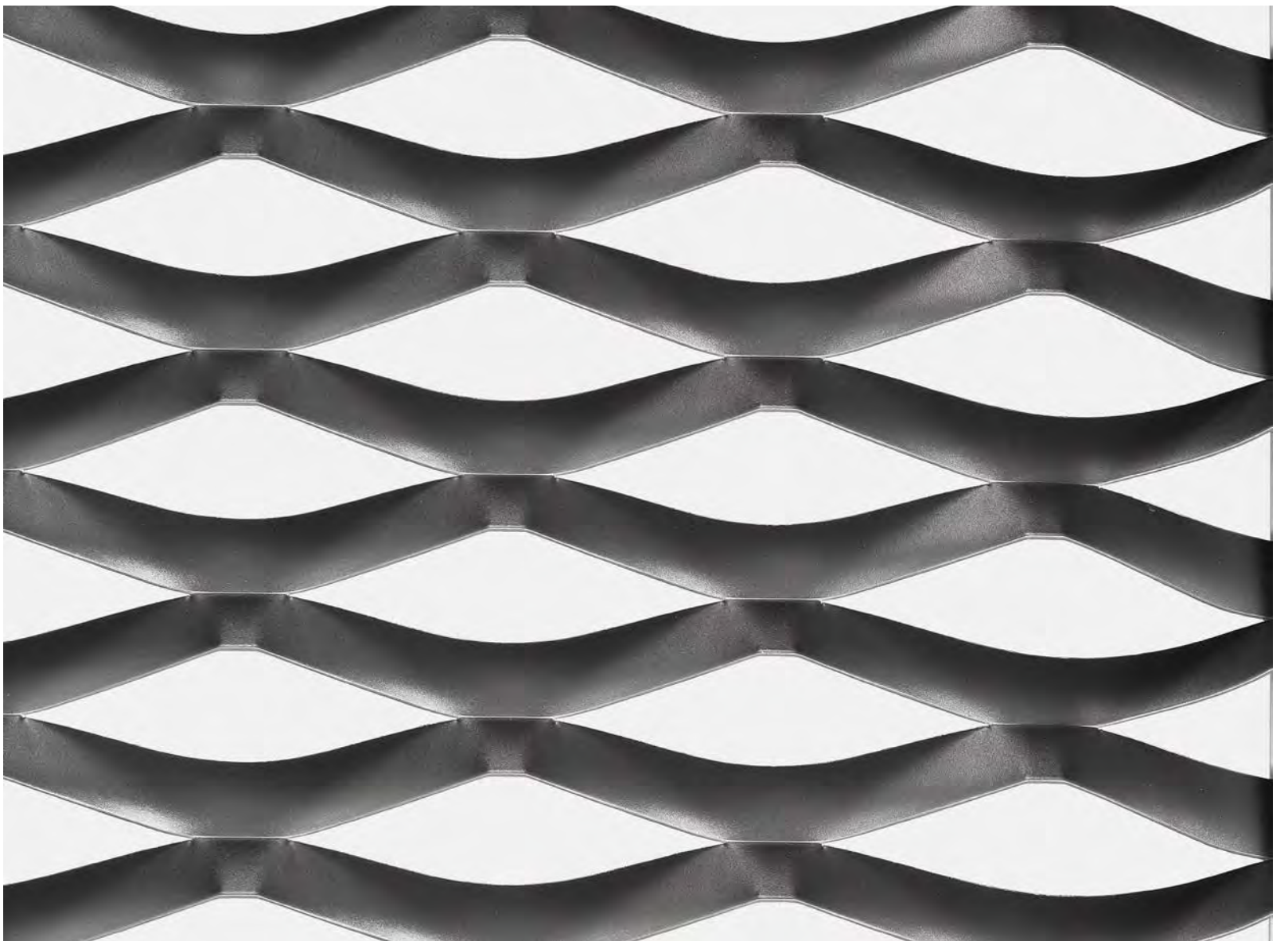
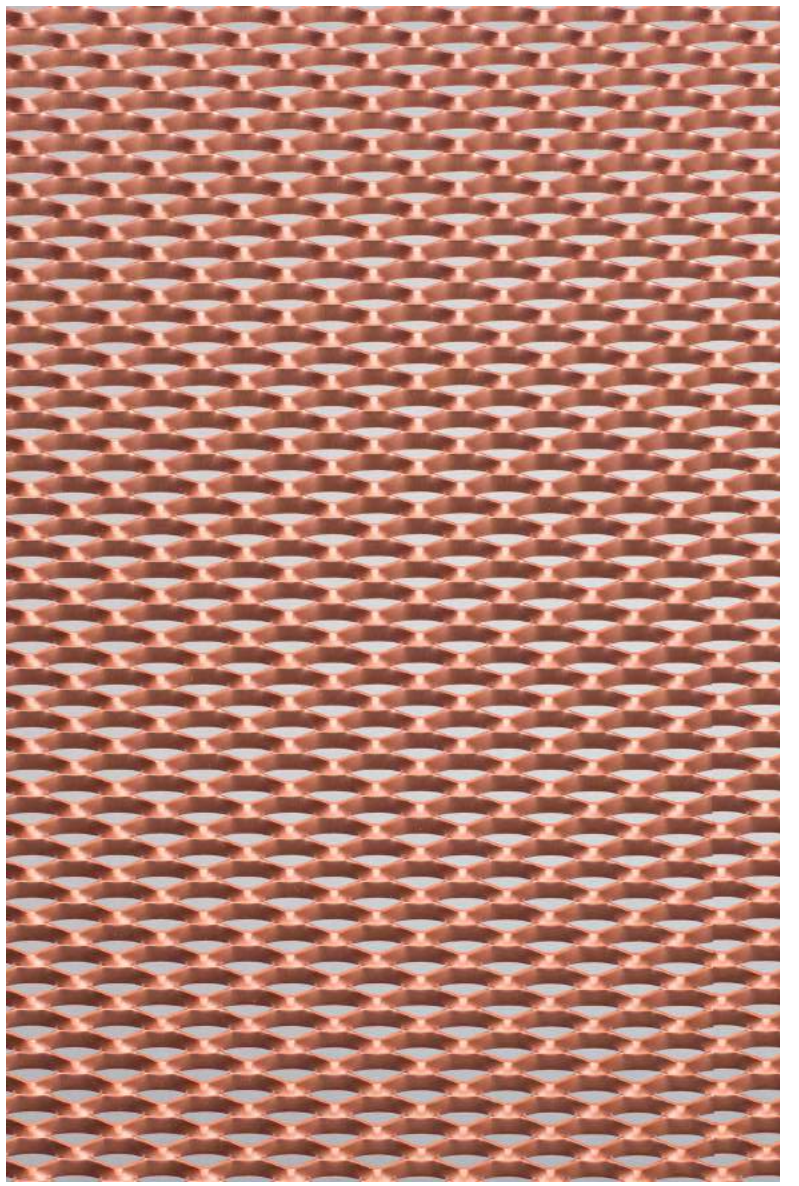
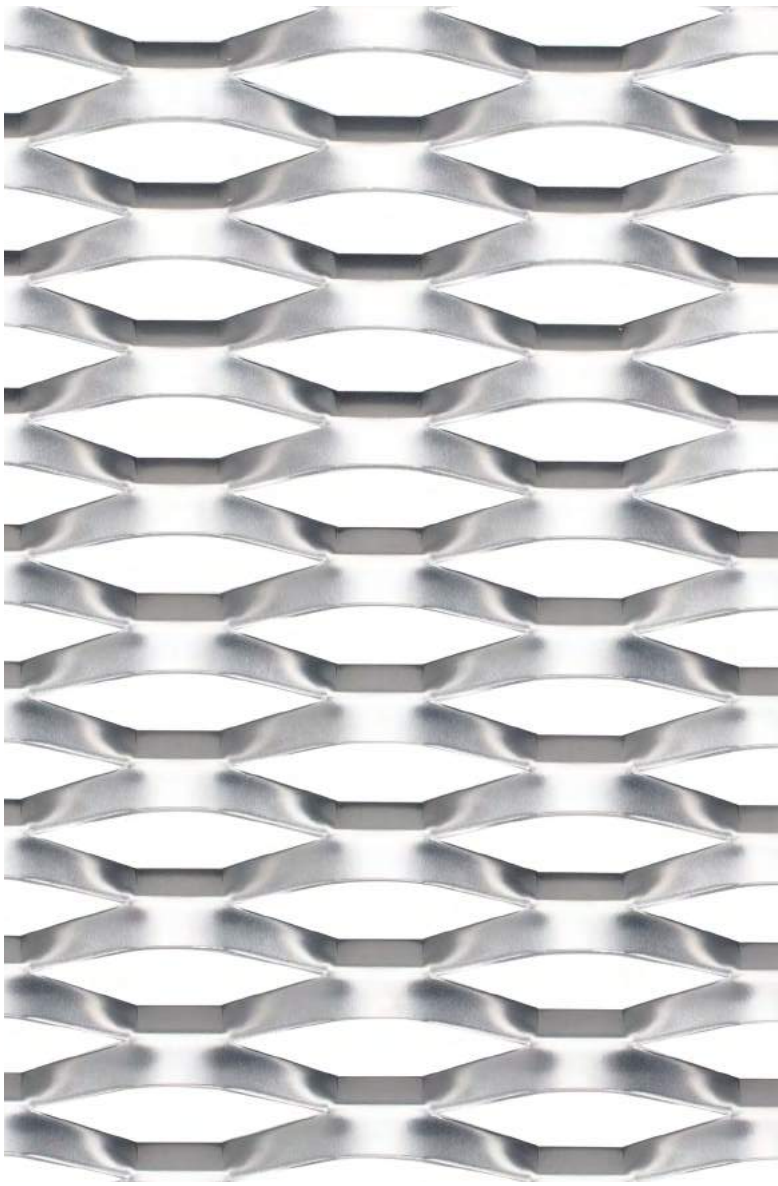
SK Architecture Type

因為執著於每一個細節，上鎧鋼鐵客製系列中的 SK-A 型號擴張網的運用不僅止於工業領域，更被建築師拿來打造智能作品。鋁合金的 SK-A 型號擴張網散熱節能、製作方式環保、結構透光，也能與藤蔓植物結合以淨化空氣、阻絕噪音，成為功能與美感兼具的建築外觀材料。

Our attention to detail brings out the aesthetic appeal of Shang Kai Steel's SK-A Type expanded metal. It is an architectural element with many beneficial qualities. Installed on building exteriors, aluminum SK-A Type is an eco-friendly material that is capable of dissipating heat and filtering sunlight. It can also support climbing plants that purify the air while reducing noise pollution. SK-A Type is a valuable addition to environmentally conscious buildings and projects seeking energy conservation.







SKA 3019

SKA 2045

SKA 2046

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草衙圖書館

Kaohsiung Public Library
Caoya Branch

裝置於「高雄市立圖書館草衙分館」入口旁的戶外造型牆面，為建築外觀網搭配水泥牆面的參考之作，金屬網與水泥外牆穿越交錯、嵌入聯結，展現其變化彈性的一面。採用上鎧鋼鐵研製的獨立裝框設計，除了組裝方便外，更提高安裝時網目的精準度，提升工程品質，節省工時，呈現出外型輕盈、線條流暢的金屬網牆面。

The layout of Kaohsiung Public library branch. The wall perpendicular to the entrance is a mixture of SK-A Type expanded metal and concrete. The SK-A Type panels intersect and overlap the concrete, demonstrating the versatility of expanded metal. With discussing with the architect, Shang Kai Steel came up with a new technique to frame the expanded metal and a way of streamline installation. This resulted in an elegant appearance of the building as well as the openness of the space.



超薄細網

Ultra Fine Mesh

上鎧鋼鐵精造的超薄細網以其排列細密、孔徑一致、無毛邊與無破孔聞名。銅、鈦、鎳金屬類的超薄細網可運用於科技產業、醫學儀器、電子產品、運動用品等。由於應用於尖端科技產業，分毫不差的品質遂為首要條件，上鎧鋼鐵累積多年製網經驗，糅合優秀的技師知識和先進技術，產出工藝級的超薄細網。

Shang Kai Steel's Ultra Fine Mesh Type is meticulously crafted, resulting in a resilient product with no fraying along the edges. Ultra Fine Mesh Type, which is made from Copper, titanium, and nickel, can be employed in electronic hardware, medical equipment, sporting goods, etc. We have collaborated with clients in advanced technologies to come up with solutions in uncharted territory. With our expertise and advanced machinery techniques, Shang Kai Steel produces the best quality expanded metal.

超薄細網

Ultra Fine Mesh

製品規格表 Product Specifications

網目代號 Mesh ref.	目孔尺寸 Mesh Size		厚度 Thickness	網條 Strand
	SWD	LWD	T	W
UFM0107	0.7	1	0.03-0.6	0.1-1.0
UFM0102	1	2	0.03-0.6	0.1-0.8
UFM1625	1.6	2.5	0.03-0.4	0.1-0.8
UFM0717	0.7	1.7	0.03-1	0.1-0.5
UFM0203	2	3	0.03-1	0.1-1.0
UFM2803	2.8	3	0.03-1	0.1-1.0
UFM0305	3	5	0.03-0.8	0.6-1.2
UFM0408	4	8	0.5-1.0	0.6-1.0
UFM0052	0.5	1.0	0.03-1.0	0.1-0.5
UFM1102	1.1	2.0	0.03-1.0	0.1-0.8
UFM0204	2.0	4.0	0.03-1.0	0.1-1.2
UFM1535	1.5	3.5	0.03-0.5	0.1-0.8

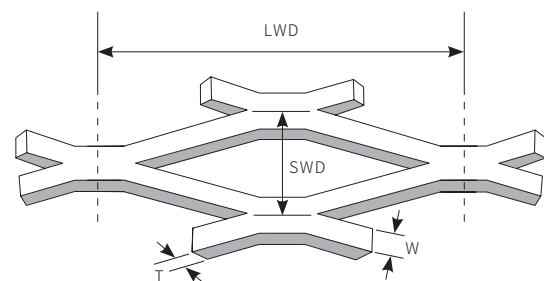
尺寸單位 - 公釐 Units in mm

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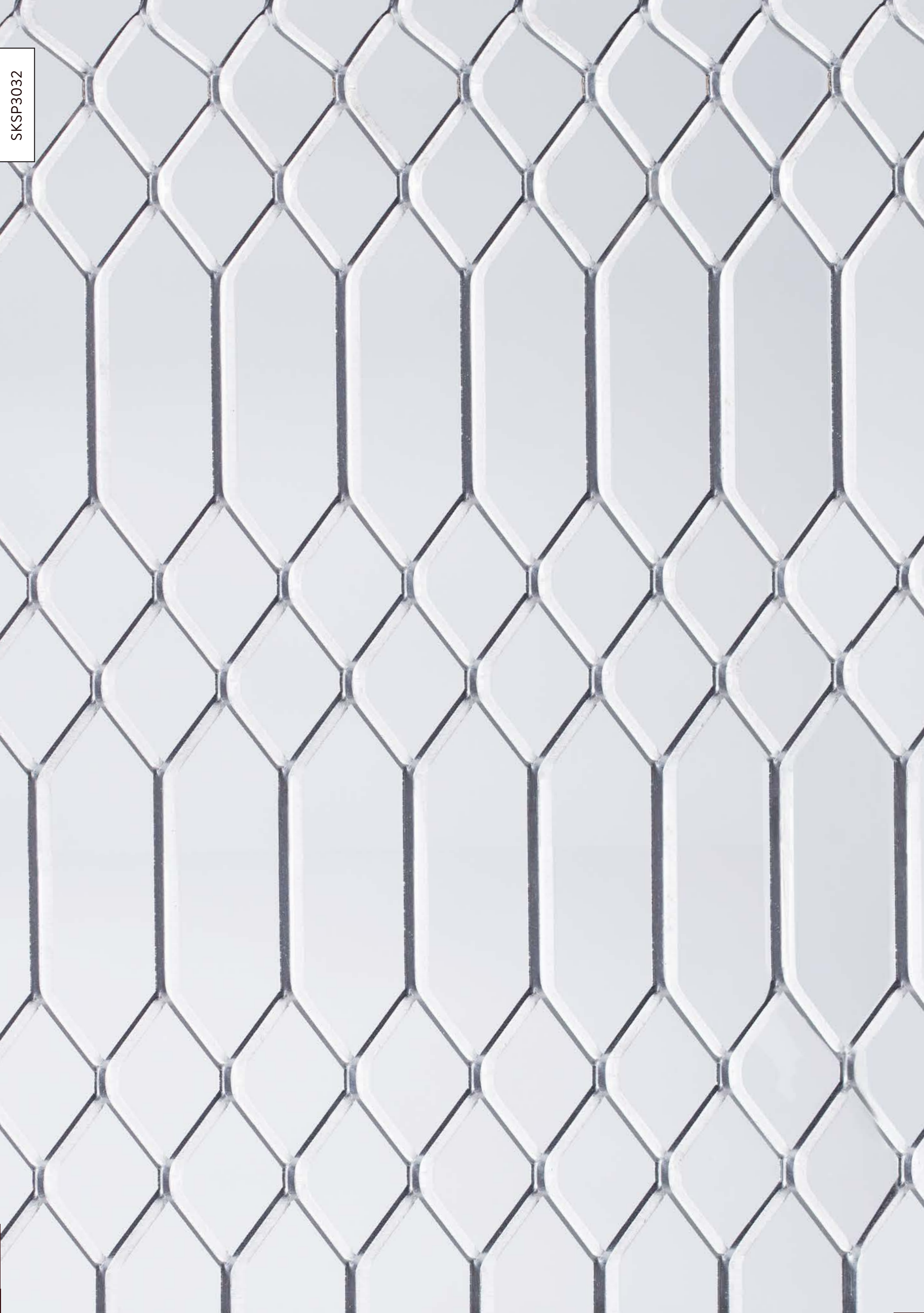


花紋型網

Slip Proof Type

由上鎧鋼鐵研發設計的花紋型擴張網，其網目的大小、深淺及兩側紋路面均可客製化，為突破圍欄、籬笆、隔板等刻板印象之作。立體的網目與大小網眼的排列組合，賦予擴張網更多應用空間的可能，上鎧鋼鐵憑藉卓越技術與製造精準的口碑，為擴張網的創新應用奠定新基準。

To expand our range of expanded metal, Shang Kai Steel combined our experience and technology to create the Slip Proof Type. The strong grip of this type comes from its ridged perforations. Its unique pattern is both functional and aesthetically striking. With our specialized skills, we are able to produce this type in customized patterns and dimensions.



SKSP3032

花紋型擴張網

Slip-Proof Type

製品規格表 Product Specifications

網目代號 Mesh ref.	網目尺寸 Mesh Size		網條尺寸 Strand Size		重量 Weight kg/m ²
	SWD	LWD	T	W	
SKSP3032	25	40/81	3.0	3.2	6.05
SKSP3030	12	19	3.0	3	35.00
SKSP3033	30	50/110	3.0	3.3	5.90
SKSP50075	25	75	5.0	7.5	23.50
SKSP50105	30	75	5.0	10.5	27.50
SKSP30080	30	75	3.0	8.0	12.55
SKSP50080	42	135	5.0	8.0	14.95
SKSP50110	45	135	5.0	11.0	19.50
SKSP1063	16	76	1.0	6.3	7.49
SKSP1563	16	76	1.5	6.3	10.40

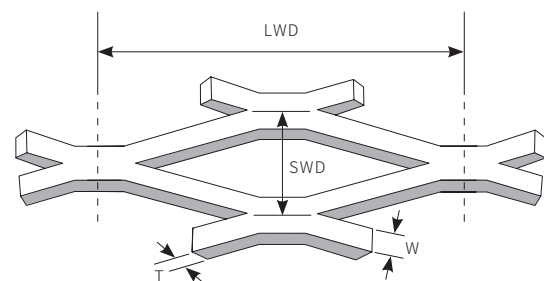
尺寸單位 - 公釐 Units in mm

本公司另可製造上述標準以外之產品，請聯絡我們。

We can also manufacture products other than the above specifications, please contact us for details.

我們可製造符合CNS, JIS, BS,ASTM, AS之國際擴張網標準規範尺寸。

We can also manufacture products from CNS, JIS, BS,ASTM, AS Expanded Metal specifications, please contact us for details.



留邊型網

Wing Type

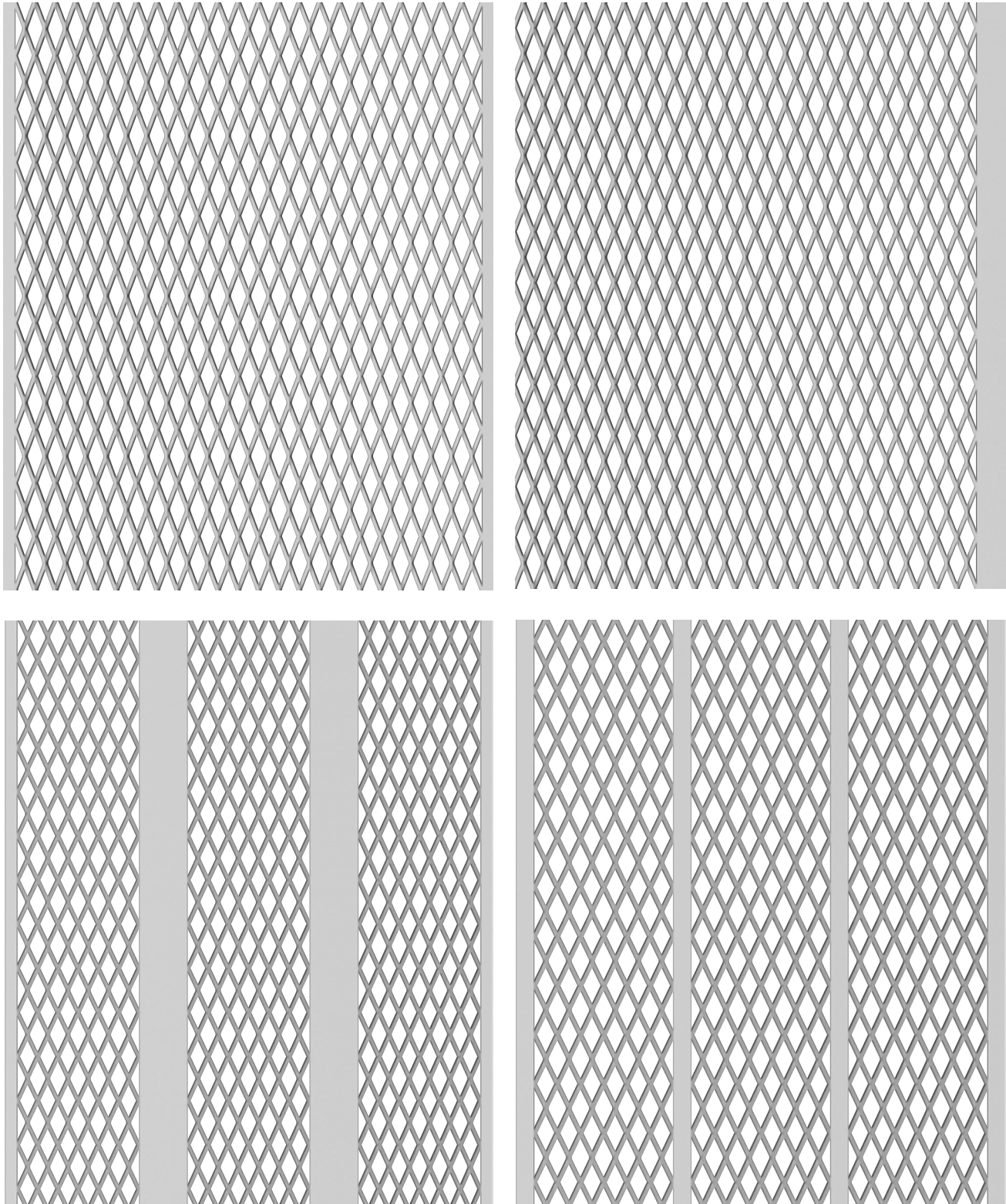
留邊型網面為金屬板與網目搭配而成，依據客戶需求，可調整網目尺寸大小、選擇兩側或間隔交錯留邊。時至今日，此型號廣泛運用於工業設計產品中，例如：留邊部分可摺疊成型，雙倍厚度強化銜接面、運作於電池內部的離子作用介面，產生電能，延長使用壽命。

Shang Kai Steel is the first to introduce the Wing Type. This type allows sections of the metal to remain unexpanded. The dimension of the unexpanded sections can be tailored to meet the client's needs. Unexpanded borders can be welded or molded into befitting shapes for optimal application.

留邊型擴張網

Wing Type

製品規格表 Product Specifications



尺寸單位 - 公釐 Units in mm

本公司另可製造上述標準以外之產品，請聯絡我們。

We can also manufacture products other than the above specifications, please contact us for details.

我們可製造符合CNS, JIS, BS,ASTM, AS之國際擴張網標準規範尺寸。

We can also manufacture products from CNS, JIS, BS,ASTM, AS Expanded Metal specifications, please contact us for details.

SKWA	SKWB
SKWC	SKWD

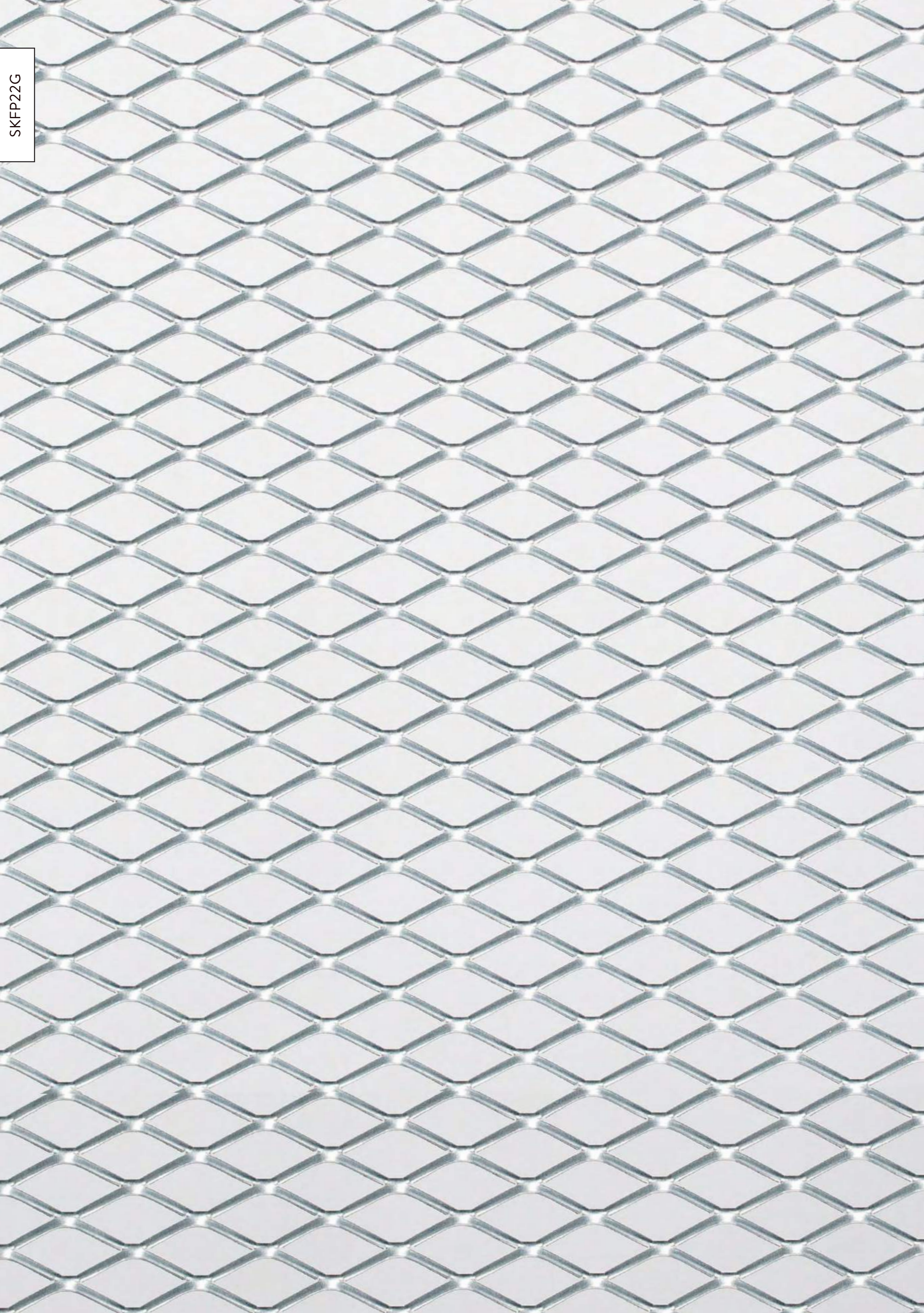
防火型網

Fire Protection Type

防火型擴張網可被覆多種防火材料，配合上鍍獨創的懸吊式架構技術，簡化施工程序，無接縫的結構沿著建築樑柱形成防塌內襯，兼具防火與保護管道的雙重優勢。

Shang Kai Steel's Fire Protection Type can be covered with different kinds of fire resistant coatings that will increase the metal's durability and strength. It is an ideal match for concrete and plaster, making seamless structures and pillars. The implementation is easy while the advantages are numerous.

SKFP22G



防火型網

Fire Protection

製品規格表 Product Specifications

製品代號 Product Ref	厚度 Thickness	重量 Weight (kg/m ²) ±10%	尺寸 Sheet size	應用 Recommended Applications
SKFP22G	0.8	1.8	2440x610 2440x1220	隔板, 懸吊式天花板, 防火 4 小時 Partitioning, 4 hrs fire proofing, suspended ceiling
SKFP24G	0.6	1.6	2440x610 2440x1220	隔板, 懸吊式天花板, 防火 2 小時 Partitioning, 2 hrs fire proofing, suspended ceiling
SKFP26G	0.5	1.2	2440x610 2440x1220	灰泥被覆底材, 連結不同材質用 Background plaster, Landscape junction between dissimilar materials
SKFP30G	0.4	0.9	2440x610 2440x1220	灰泥被覆底材, 連結不同材質用 Background plaster, Landscape junction between dissimilar materials

懸吊式天花板塗抹灰泥荷重 Load/ Span table for suspended ceiling plaster

一般橫條尺寸 Sub-runner size	20 x 10	40 x 10	50 x 10	天花板披覆灰, SKM24G 厚 20mm, SKM22G 厚 25mm For Ceiling Plaster, SKM24G MAX, Render coat 20mm, SKM 22G 25mm
主橫條尺寸 Main runner span	1200	1800	2400	天花板披覆灰泥, SKM24G 厚 20mm, SKM22G 厚 25mm For Ceiling Plaster, SKM24G MAX, Render coat 20mm, SKM 22G 25mm
一般橫條跨距 Sub-runner span	300 / 600	300 / 600	300 / 600	適合用 SKM 22G/24G For SKM 22G/24G and SKRL (Metal Ribbed lath SKRL)

完整圖示 COMPLETE DIAGRAM



尺寸單位 - 公釐 Units in mm

SKFP 製品均以鍍鋅鋼捲為材料製成符合 Z275, ASTM -A525 / A653

Our SKFP products made by pre-galvanized

BS EN 10142 :1991, Z275, ASTM -A525 / A653, JIS G3302

符合 ASTM C847 標準規範

Our SKFP products conform to ASTM C847

關於防火型網

About Fire Protection

防火兩小時之柱與樑的典型規格

外包 SKFP 24G 金屬擴張網之 H 或 I 型鋼，以鍍鋅鋼釘、鍍金螺絲、點焊焊接或鍍鋅鐵線固定之，然後塗抹 19mm~25mm 厚度之防火材料（依防火材料之特性施以不同之厚度），在其角邊使用 SK50 角條予以固定，請參閱圖 2、3。

防火四小時之柱與樑的典型規格

外包 SKFP 22G 金屬擴張網之 H 或 I 型鋼，以鍍鋅鋼釘、鍍金螺絲、點焊焊接或鍍鋅鐵線固定之，然後塗抹 45mm~50mm 厚度之防火材料（依防火材料之特性施以不同之厚度），在其角邊使用 SK50 角條予以固定，請參閱圖 2、3。

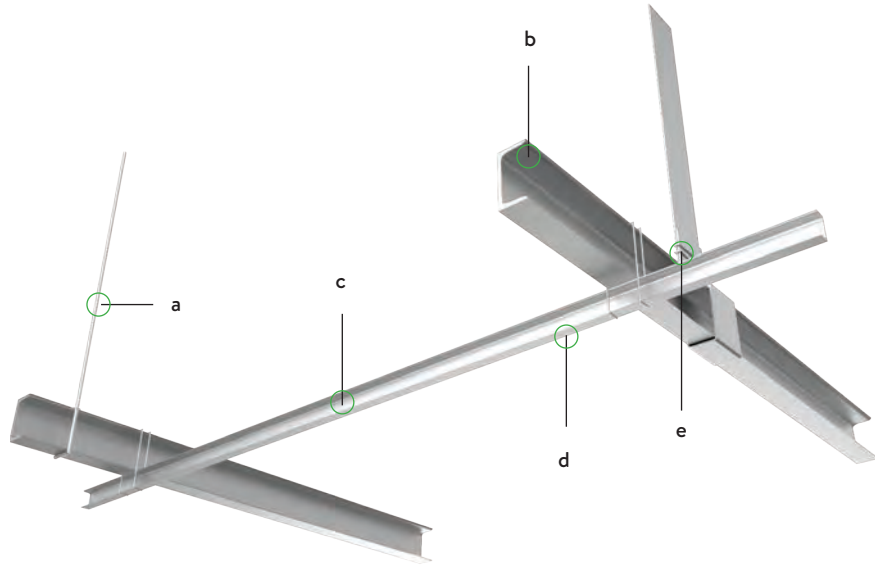
2- hour Fire Protection Specifications

Fire Protection Specifications for 2 hour Fire Rating to a Stanchion and Beam Steel stanchion and beam (H/IType) which are encased with SKFP24G, fixed by galvanized nail, self-tapping screw, spot welding or galvanized wire, and received 19mm~25mm thickness of fireproofing plaster and angle beads SKAB50 to arises. (The final thickness and number of coats are depended upon the fire rating required.) Please refer to Figure 2&3.

4- hour Fire Protection Specifications

Fire Protection Specification for 4-hour Fire Rating to a Stanchion and Beam Steel stanchion and beam (H/IType) which are encased with SKFP 22G, fixed by galvanized nail, self-tapping screw, spot welding or galvanized wire, and received 45mm~50mm thickness of fireproofing plaster and angle beads SKAB50 to arises. (The final thickness and number of coats being depended upon the fire rating required.) Please refer to Figure 2&3.

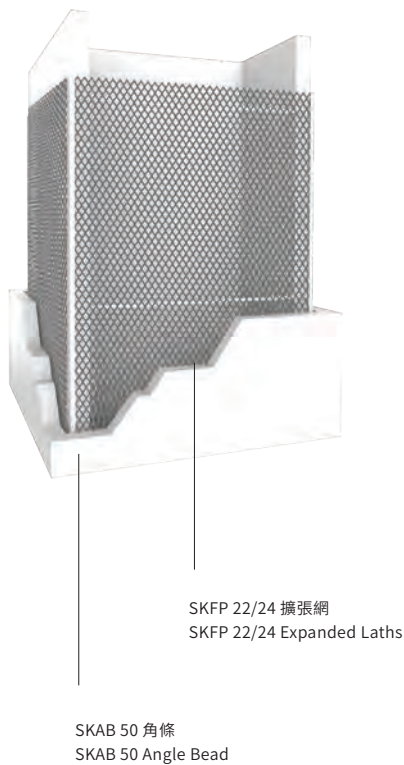
(圖1) Fig. 1



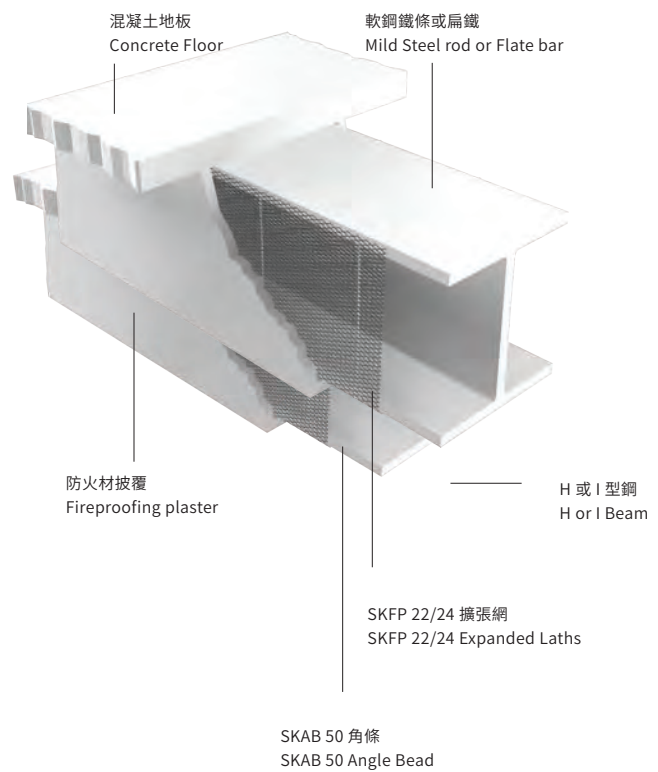
懸吊式天花板安裝圖 -SKFP Suspended ceiling type expanded metal lath

- | | |
|---|---|
| <p>a. 以扁鐵尺寸 3mmx25mm(1"x14") 或圓條 6mm(1/4") 彎曲之懸桿</p> <p>b. H型鋼 / 槽鐵</p> <p>c. 鋼質槽橫條</p> <p>d. 使用 #11 (2.95mm) 鍍鋅鐵線捆綁</p> <p>e. 使用 #18 (1.22mm) 或 #16 (1.62mm) 鍍鋅鐵線捆綁</p> <p>f. 使用金屬有肋格網時橫條之間隔 350-600mm</p> | <p>a. Hanger bent on 1" x 1/4" flat or 1/4" dis rod</p> <p>b. H-Beam / channel bar</p> <p>c. Steel channel bar</p> <p>d. Use #11 (0.156") Galvanized steel wire tie</p> <p>e. Use #18 (0.048") or #16 (0.064") Galvanized steel wire tie</p> <p>f. Use Ribbed-Lath if runners are 14"-24" apart</p> |
|---|---|

(圖2) Fig. 2



(圖3) Fig. 3

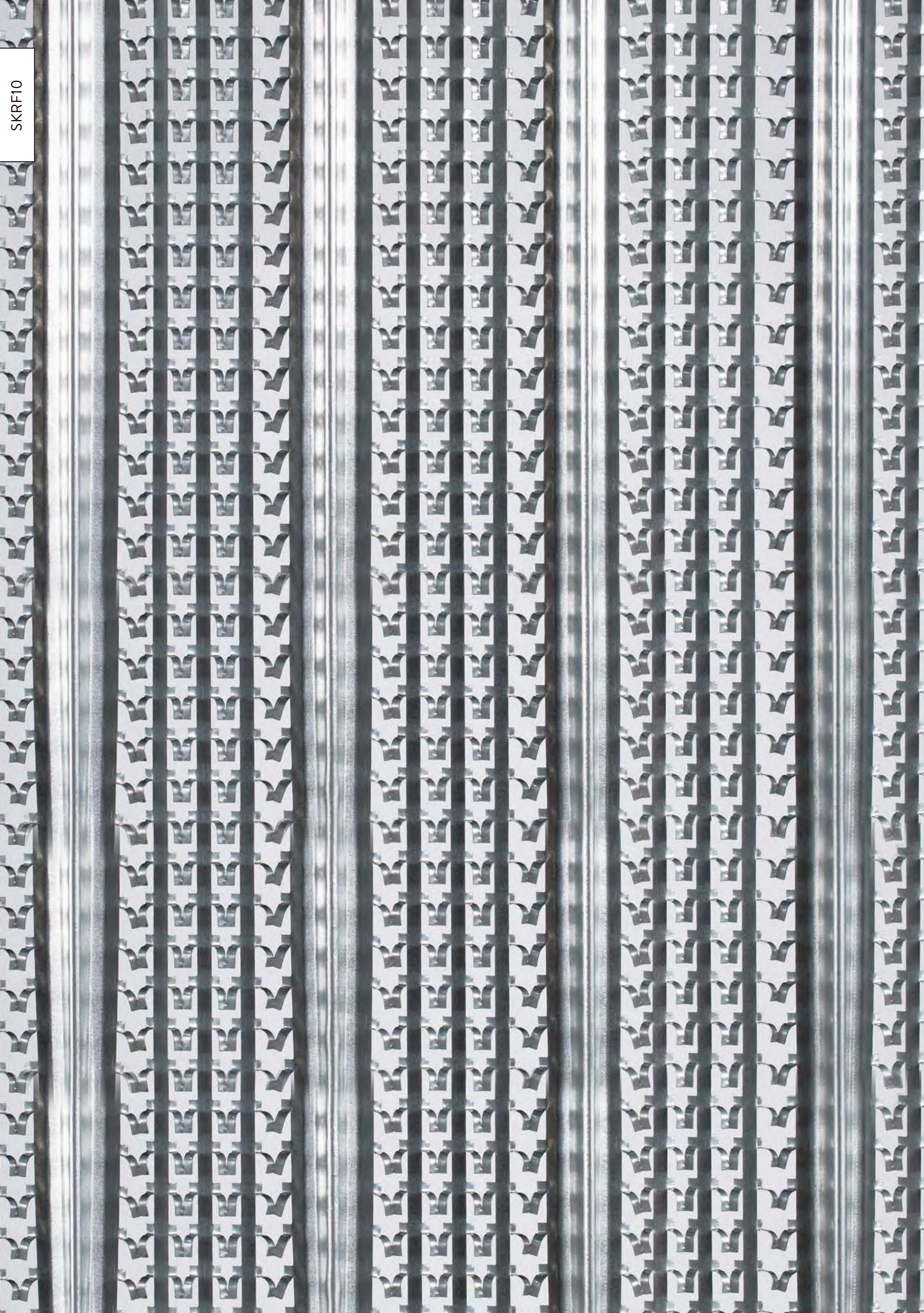


金屬高肋模板

High Ribbed Formwork

金屬高肋模板採用國際標準規範之熱浸鍍鋅鋼板，以自動化機器沖輾壓成形。此模板非常輕巧，且易於剪切彎折成為臨時性結構，可取代傳統木質模板以及承受建築模板自重及作用在其上的外部荷載。在不同環境下，其肋條縱向可呈垂直或水平方式安置，形狀及尺寸變化多端。此外，邊肋上具有彎邊，彎邊與面板構成槽形，方便灌注混凝土，工程質量與施工安全更具保障，亦可加速施工進度和降低成本。

Shang Kai Steel's High Ribbed Formwork is made of galvanized metal to prevent rusting. It is designed to be a lightweight, flexible, and easy to install. The unique structure of High Ribbed Formwork is beneficial for its strength and to adhere to concrete. It can adapt to different environments due to its ability to be folded and shaped. Used in buildings, tunnels, and other constructions, this formwork is more time-efficient and cost-efficient than traditional methods such as wooden formwork.



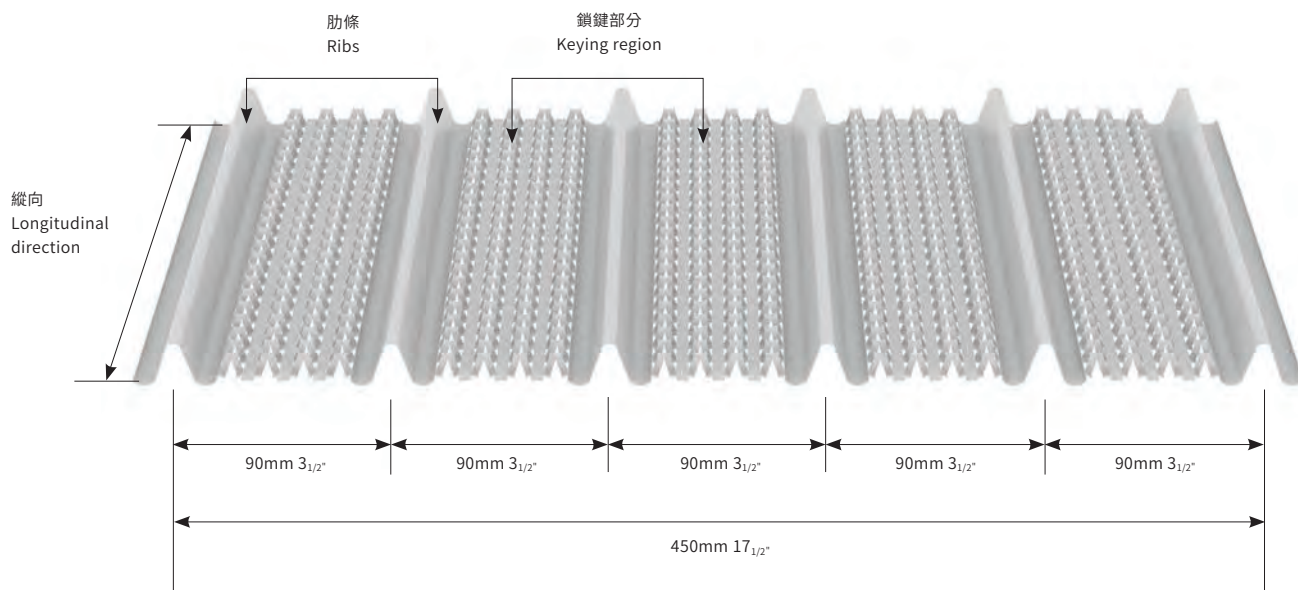
SKRF10

金屬高肋模板

High Ribbed Formwork

製品規格表 Product Specifications

產品編號 Product Ref.	其他稱呼 Generic	材料厚度 Material thickness	重量 Weight kg/m ² ± 10%	標準製品尺寸 Standard sheet size
SKRF28	HR2811	0.440	3.39	2500 / 5000 X 450
SKRF26	HR2611	0.575	4.86	2500 / 5000 X 450
SKRF24	HR2411	0.750	6.34	2500 / 5000 X 450



尺寸單位 - 公釐

Units in mm

材料為熱浸鍍鋅鋼板。

Made by Pre-galvanized sheet material.

本公司另可製造上述標準以外之產品，請聯絡我們。

We can also manufacture products other than the above specifications, please contact us for details.

關於上鎧金屬高肋模板
About High Ribbed Formwork

產品說明

上鎧金屬高肋模板僅單面有肋條，其「反肋條面」一般用來固定於支撐上。支撐柱之間距與數量應按實際情況與經驗仔細決定（請參閱圖 2、3、4、5、6、7、8）。此產品能被彎折成為任何形狀結構，如遇角位，可切割產品之肋條及彎折至理想形狀。當產品應用於一般接縫結構上，其支撐間距與每次灌漿的深度之間的關係十分重要，灌漿深度與支撐間距的配合，請參考下列資料表。

PRODUCTS DESCRIPTION

The rib of Formwork is at one side only. The placement of the support is usually at the non-rib side. Based on actual situation and experience, the number and positioning of the supports are carefully decided (See Fig. 2 to Fig 8). The product can be bent and curved to suit toggle joints. For angles, the products can be cut partially at the ribs and then bent at the cutting. When the rib formwork is used in construction joint applications, the relationships between support distances and depth of pouring are critical. The table below is a recommendation for engineer's reference.

灌漿深度 Concrete Depth (M)	支撐間距 Distance Between Supports (M)		
	SKRF 24	SKRF 26	SKRF 28
3.00	0.35	0.25	0.22
2.50	0.40	0.30	0.27
2.00	0.50	0.40	0.35
1.50	0.70	0.60	0.50
1.00	0.85	0.70	0.60
0.50	1	0.85	0.70
0.25	1.2	1.00	0.80

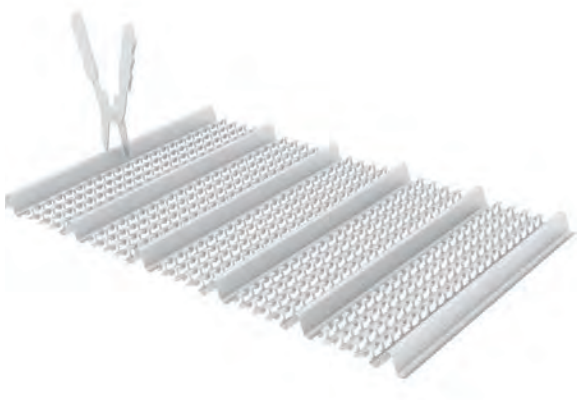
金屬高肋模板優良特性

- 質量輕
上鎧金屬高肋模板之標準重量為 3.39 kg/m^2 至 6.34 kg/m^2 。
- 容易剪裁
普通剪刀即可輕易剪其「鎖鏈部分」，而肋條位置則可使用夾剪剪切（參照圖 1）。
- 貫穿結構
上鎧金屬高肋模板能縱向捲起、摺疊以貫穿最小直徑約 150mm 之孔型建築結構，此能解決舊式模板無法安置於某些建築設計上的難題。
- 「鎖鏈」效果 - 上鎧金屬高肋模板之「鎖鏈部分」為精心設計之開放式網孔，可於灌漿時迅速排除適度水分與所有空氣。當灌漿完成凝固後，自然產生小結塊粗粒表面，即可進行下一次灌漿。
- 容易組合 - 上鎧金屬高肋模板之肋條安置可採用垂直或水平方式搭接成實際所需之面積。

技術性優點

- 使用上鎧金屬高肋模板於接合組裝等位置，當灌漿完成凝固後，表面不易產生裂縫。
- 上鎧金屬高肋模板的開放式網孔可以視察、監控灌漿情況，亦可排除灌漿時所鎖住之空氣與多餘水分，其通風特性更可令混凝土迅速凝固。
- 上鎧金屬高肋模板的「反肋條面」可直接修飾表面及鋪磁磚。
- 上鎧金屬高肋模板底部混凝土的壓力比傳統模板更小。

(圖1) Fig. 1



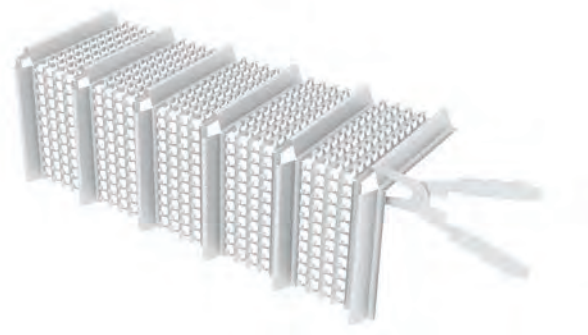
金屬高肋模板之助用剪刀即易沿所需尺寸剪裁
Ribs of high-ribbed formwork snipped along line of required cut.

FEATURES OF FORMWORK

- Light Weight - The weight of each Formwork ranges from 3.39 kg/m^2 to 6.34 kg/m^2 , easy for installation of concrete joints.
- Easy Cutting - A pair of tailor's scissors is strong enough to cut through the "keying region". At the ribs, one can use a plier type cutter to do the job (See Fig.1).
- Going through holes - The Formwork can be rolled up longitudinally into a tube form to slip through holes of say 150mm diameter. Our product can be placed in some inaccessible by conventional formworks areas.
- Keying Effect - The "keying regions" between the ribs enable the cement to go through it from one side, letting the air and excess water to escape. When the concrete is set, the other side is left with a rough surface ready to receive adjacent concrete pouring.
- The formwork can build up to a large area easily by over-lapping ribs or crossing the standard width of the product at the ends.

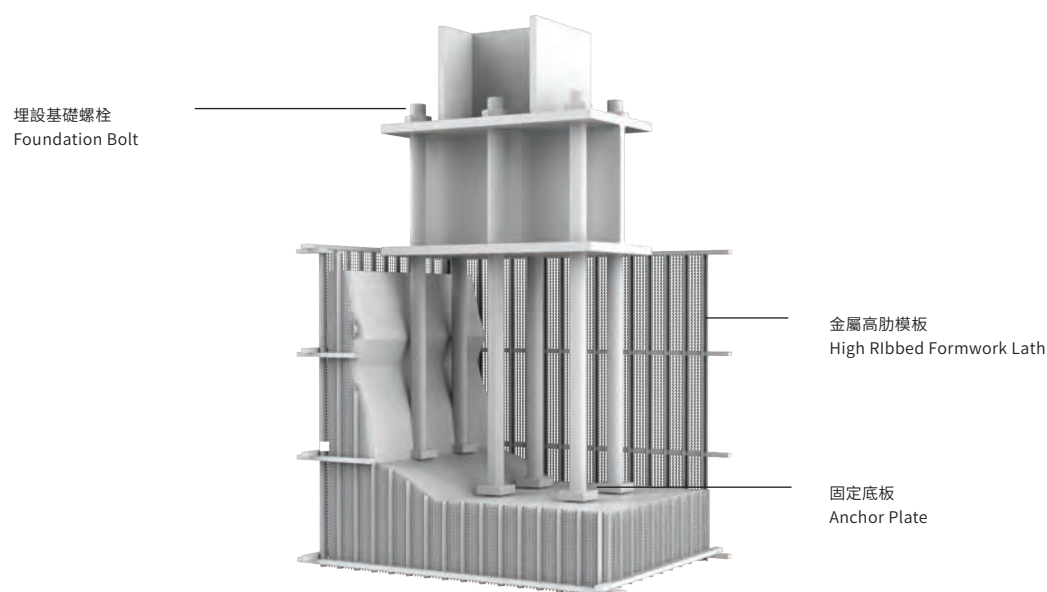
TECHNICAL ADVANTAGES

- With the application of the formwork, the surface is not easy to crack after the pouring of concrete.
- During the pouring of concrete, the openness of the formwork at the "Keying region" allows for monitoring the concrete levels. Meanwhile, the ribs allow for escape of trapped air and draining off excess water. Aeration at the formwork helps to set concrete quickly.
- The non-rib side of the formwork is always ready to receive plastering and / or tilling, wherever is required.
- Concrete pressure at the base of the formwork is always less than that of conventional formwork.



用手剪刀即易將金屬高肋模板予以剪切並彎曲
High-ribbed formwork sheet bent over and cut with hand shears.

(圖2) Fig. 2



上鎧金屬高肋模板築城之基礎柱盒剖面詳細
San Kai Foundation Bolt Box Section Detail.

混凝土選擇

上鎧金屬高肋模板適用於多數混拌混凝土。其坍落度 (Slumps) 最好保持在 70mm 至 150mm 級。如使用於坍落度 125mm 級以上，首次灌漿時可能造成些許水泥漿由模板網孔流失，但此現象並不會影響或減少混凝土之強度。而使用於坍落度 125mm 級以上，震動器並不適用。

震動器使用

當需要使用震動器協助施工時，震動器與上鎧金屬高肋模板面必須保持最少 450mm 之距離。如果必須靠近，震動器最好每 5 秒至 10 秒震動一次，至混凝土在模板背面產生小結塊為止。

混凝土水泥漿灌注

混凝土不應直接灌注於高肋模板上。當灌注混凝土水泥漿時，必須從距離模板最少 0.5m 處灌注，其流至模板表面。一般情況下，混凝土水泥漿應灌注於模板之肋條面。

泛面組裝方式

使用上鎧金屬高肋模板進行泛面組裝時，鄰接模板兩端之尾部必須有 150mm 以上的重疊搭接。而鄰接模板其邊肋條搭接時，最少須搭接一條肋條。搭接後，尾部重疊搭接部分須使用鍍鋅鐵絲環繞肋條紮捆在支撐上，或以鐵釘釘穿肋條確實固定在支撐上，而邊肋條搭接部分每間隔 150mm 將搭接肋條予以紮綁。所有尾端搭接必須固定在支撐上 (請參閱圖 8)。

CONCRETE SUITABILITY

The FORMWORK can be applied in most concrete mixes with slump between 70mm to 150mm. When the application is with concrete slump of 125mm and over, a little cementation liquid is expected to seep through the "Keying region" of the FORMWORK during the initial stage of the concrete pouring. However, it does not weaken the strength of the concrete core. In this situation, a vibrator is not applicable.

USE OF VIBRATOR

The placement of vibrator shall be at least 450mm away from the FORMWORK. If a shorter distance must be applied, the vibration must burst in every 5 to 10 seconds.

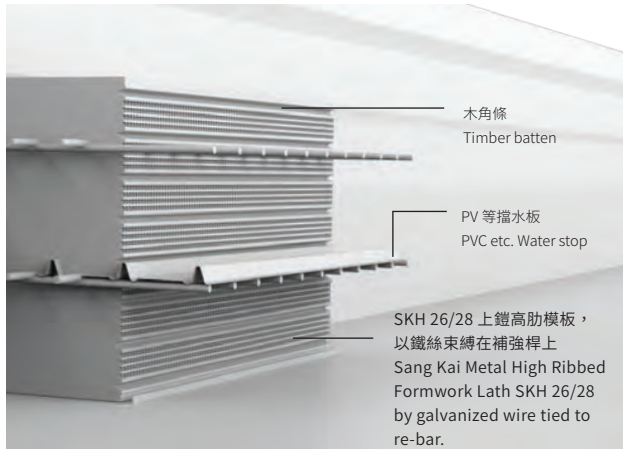
POURING OF CONCRETE

Concrete shall not be poured directly against the FORMWORK. The concrete shall be poured at about 0.5m away from the FORMWORK to let it flow towards the FORMWORK. In general, the pouring of concrete should be effected against the ribbed side of the FORMWORK.

BUILDING UP A LARGE AREA

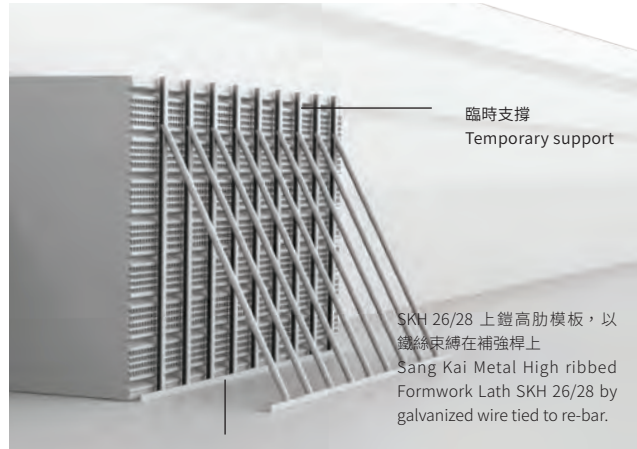
The FORMWORK shall be overlapped with a minimum distance of 150mm at the end-laps. Overlapping of the side lap shall be on one rib only. For the end laps, the overlapping shall be fixed together by galvanized wires or nailing onto the supports. For side laps, a standard distance of 150mm between fixing point applies. It

(圖3) Fig. 3



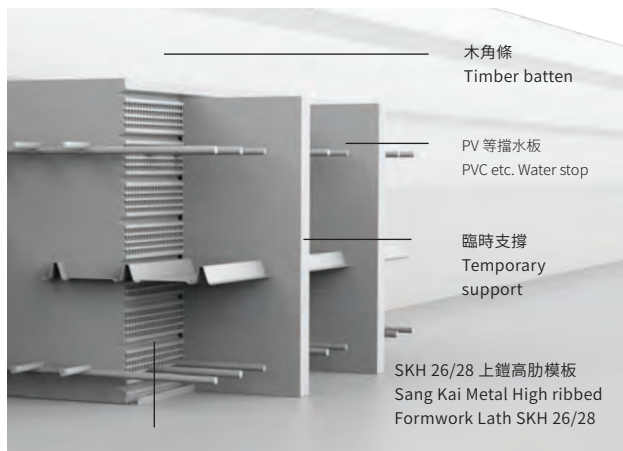
附氯乙烯擋水板補強桿支撐構築連接縫
Joint with PVC water stop with re-bar supports.

(圖4) Fig.4



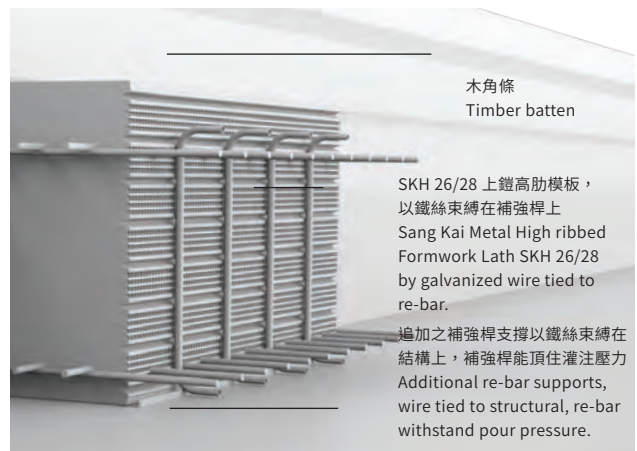
擋土牆構築應用
Retaining walls construction application

(圖5) Fig.5



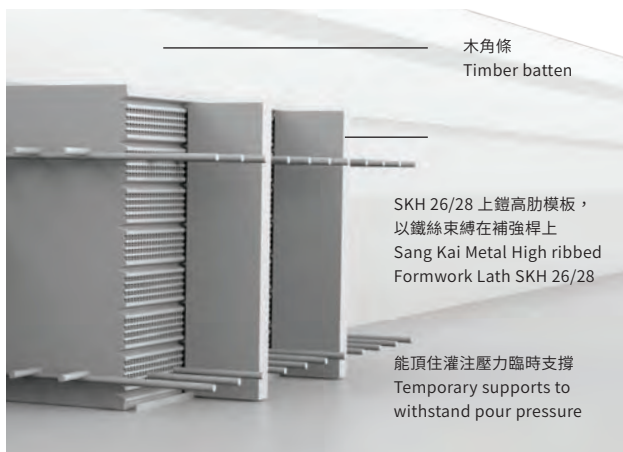
附擋水木材支撐構築連接縫
Joint with water stop timber supports.

(圖6) Fig.6



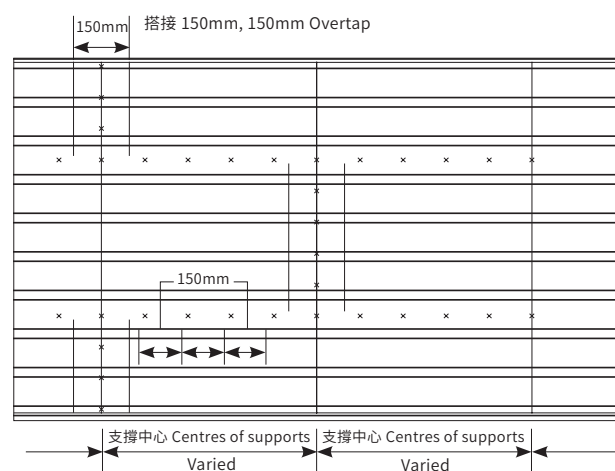
補強桿支撐之標準構築連接縫
Standard Joint with re-bar supports.

(圖7) Fig.7



木材支撐標準構築連接縫
Standard Joint with timber supports

(圖8) Fig.8



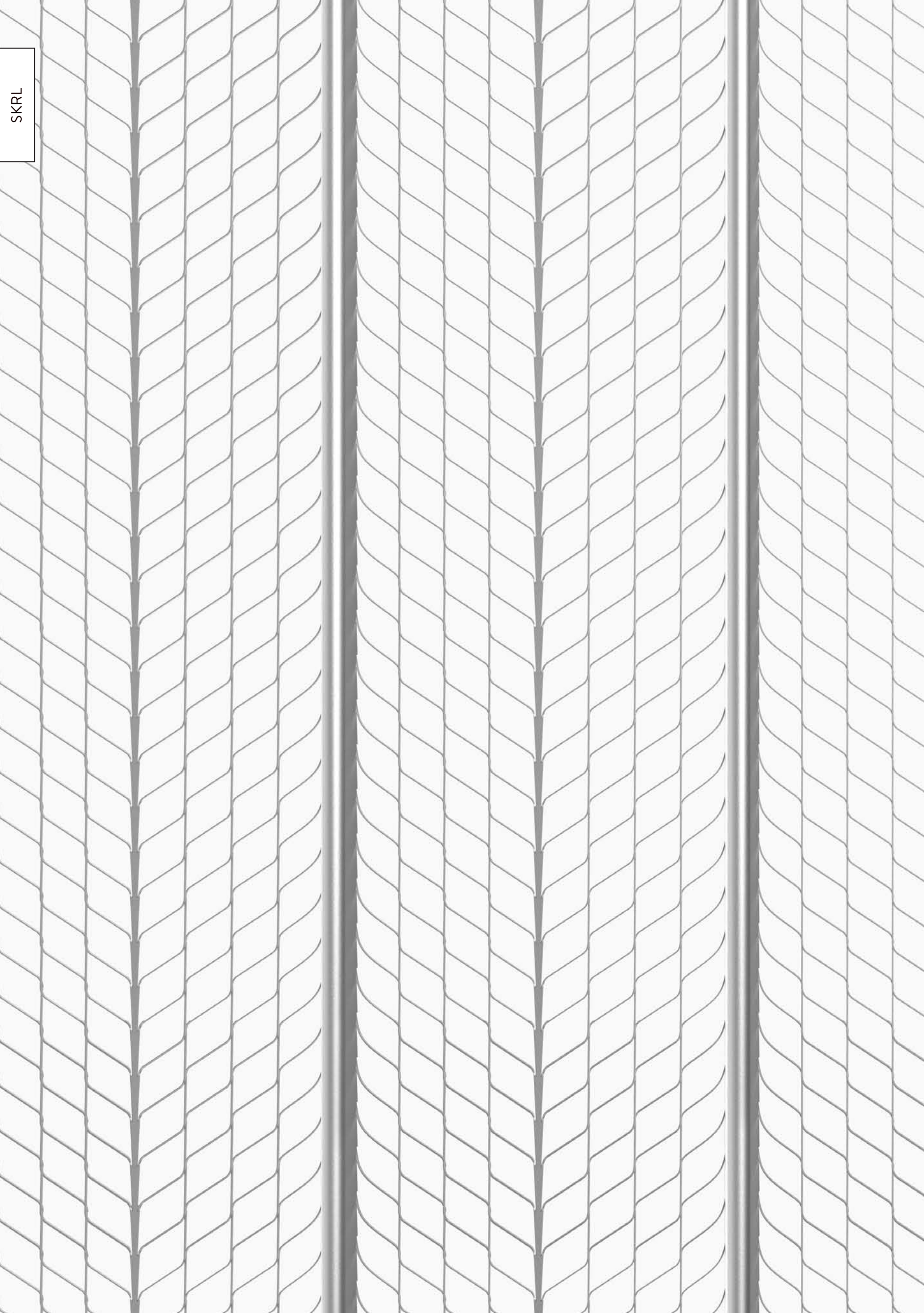
X 以 1.63mm 徑之鍍鋅鐵線予以紮細固定
X Mark by 1.63mm galvanized soft wire tie location

金屬有肋格網

Ribbed Lath

金屬有肋格網是採用國際標準規範之熱浸鍍鋅鋼板，以自動化機器沖輾壓、擴張成箭尾形狀。此模板強韌輕巧，可用作防火、隔溫施工時之底層材料，具有補強作用；或用於黏著的表面上，使灰泥非常完整地凝結並附著於其表面上。其肋條縱向可呈垂直或水平方式安置，形狀及尺寸變化多端。廣泛用於建築物建設工程及土木建築工程，操作簡單、施工快、回報高、環保節能。

Ribbed Lath is made of galvanized steel that is expanded into a herringbone pattern. This lightweight yet durable product is used for fireproofing and structural reinforcement as well as can be used as a surface for materials to adhere to. It has anti-corrosion properties and allows for smooth application of coatings such as plaster. Ribbed Lath can be made to fit many circumstances because it is a highly adaptable, eco-friendly, time-and cost-efficient product for constructions.



SKRL

金屬有肋格網

Ribbed Lath

材料及製造

有肋格網之材料使用各國標準規格之熱浸鍍鋅鋼捲為原料，經自動化機器設備沖壓製造。

形狀

箭尾形網狀之有肋金屬網以及有肋格網形狀兩種。請參閱圖 1 及 2。

MATERIALS & MANUFACTURING METHODS

Complying with the international standards, Shang Kai Steel's Ribbed Lath is made of galvanized coil by automatic stamping machines.

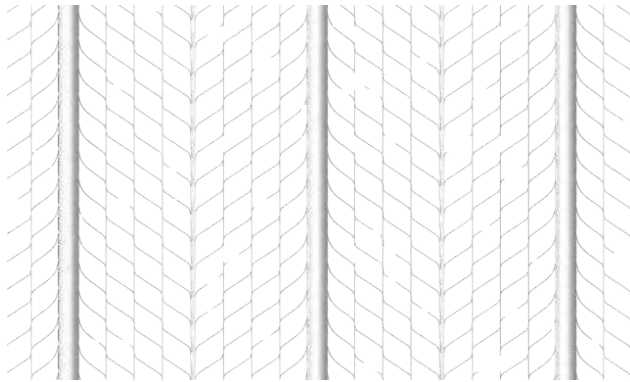
SHAPES

We offer shapes with webbed herringbone pattern and ribbed lath. Please see Fig. 1 and 2 for details.

製品規格表 Product Specifications

產品編號 Product Ref.	材料厚度 Material Thickness	重量 Weight (± 10% kg/m ²)	標準尺寸 Standard sheet size	最大跨距 Max. span
SKRL361	0.3	1.2	2500 x 610	500
SKRL461	0.4	1.6	2500 x 610	600
SKRL561	0.5	2.0	2500 x 610	700

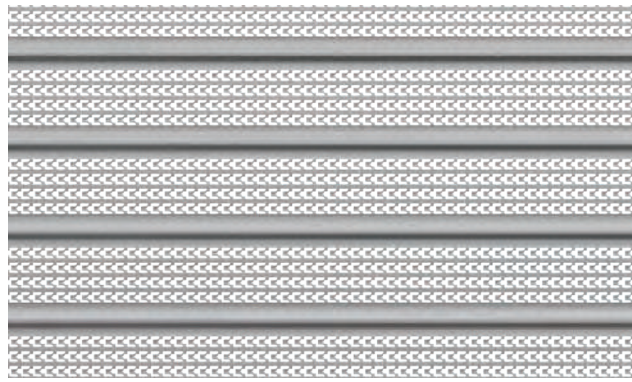
(圖 1) Fig. 1



鱗魚骨網狀之有肋金屬網

The with webbed herringbone panel metal ribbed lath

(圖 2) Fig. 2



金屬高肋模板形狀

Shape for high ribbed lath

尺寸單位 - 公釐 Units in mm

長度除上述規格外，可以配合顧客需要之尺寸製造，歡迎洽詢。

We can also manufacture products other than the above specifications, Please contact us for details.

關於上鎧金屬有肋格網

About SKRL

使用方法

有肋格網之固定方法非常簡單，先將肋條頂部緊貼支柱呈垂直狀，再以鍍鋅鐵釘或鍍鋅鉤釘穿肋條，將肋條確實固定於木材支柱上，或以鍍鋅鐵線環繞肋條緊捆於鋼樑上（請參閱圖 5）。

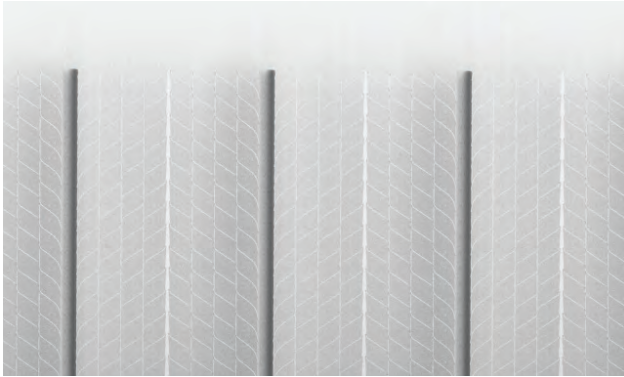
有肋格網必須在兩端尾部重疊搭接，其邊上肋條亦須搭接，每間隔 150mm 用 SWG#18(1.22mm 徑) 鍍鋅鐵線予以紮綁（請參閱圖 6）。倘若在支撐柱上搭接，其重疊搭接面不得少於 50mm，並用 SWG#16 (1.63mm 徑) 鍍鋅鐵線綁緊肋條（請參閱圖 7）。若搭接點位在兩支撐柱之間，其重疊搭接面須達 100mm 以上，按上述方式綁緊肋條，但每對重疊搭接點的肋條至少須綁緊兩點（請參閱圖 8）。

PLACEMENT OF RIBBED LATH

The method to fix ribbed lath is very simple. Ribs should always run vertically to support with the apex of rib with the support and with every rib secured.

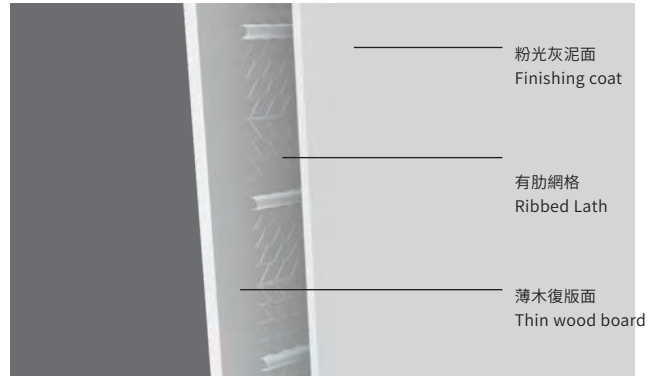
To fix against timber studs, apply galvanized nail or staple through the rib. Tie galvanized mild steel wire round the rib to secure against steel studs (as shown in Figure 5). Ribbed-lath should be overlapped at the edge of both sides and the lapped edge ribs should be nested and wired together with SWG#18 (1.22mm) galvanized wire at intervals exceeding 150mm (see Figure 6). Ribbed-lath should be overlapped no less than 50mm on supports and the ribs wired together with SWG#16 (1.63mm) galvanized wire (see Figure 7). Where end laps occur between supports, the ribbed-lath should be overlapped no less than 100mm and the ribs wired together with 1.63mm galvanized wire at least two ties to each pair of overlapping ribs (see Figure 8).

(圖3) Fig.3



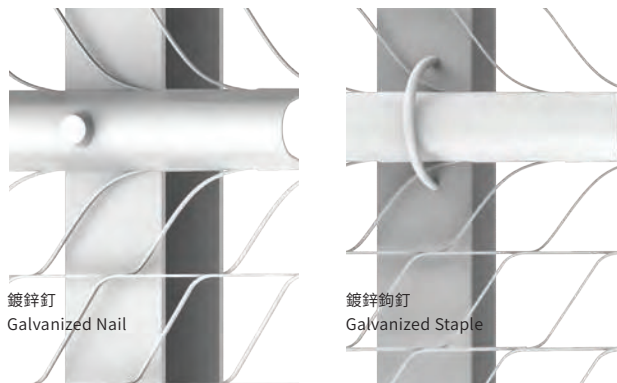
Bonding condition of plaster and Ribbed Lath

(圖4) Fig.4



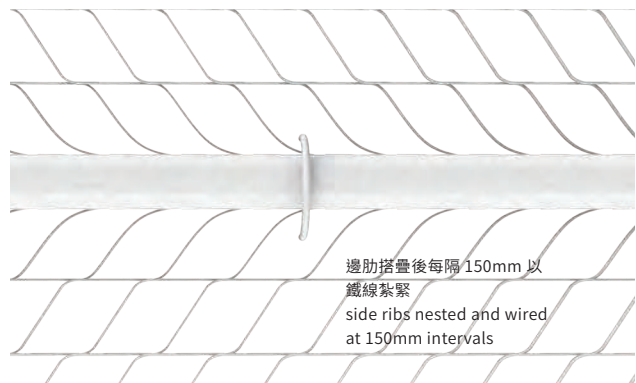
擋土牆構築應用
Retaining walls construction application

(圖5) Fig.5



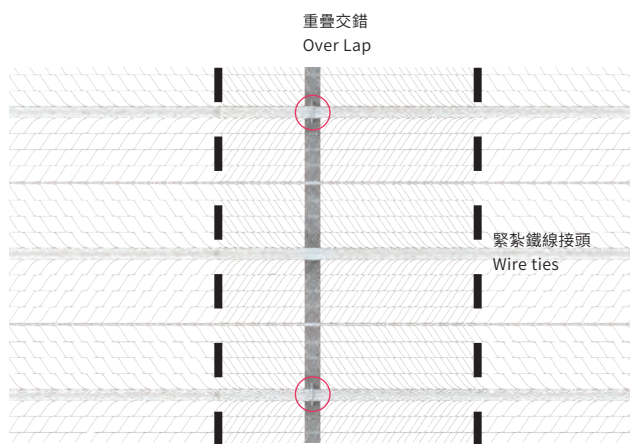
有肋格網固定方法
Ribbed Lath fixing method

(圖6) Fig.6



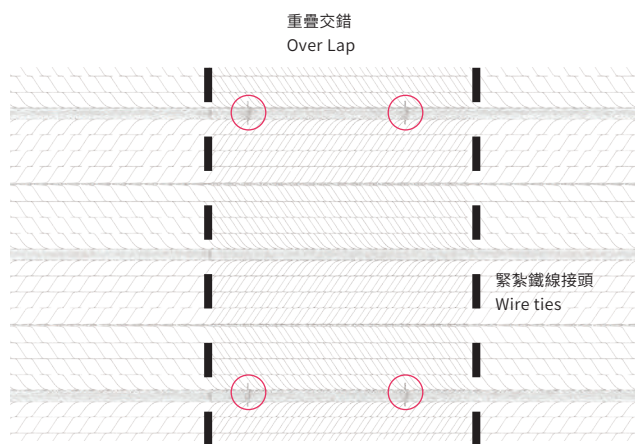
邊肋搭疊後情形
The edge ribs to lapped state

(圖7) Fig.7



在支撐柱處重疊情形
50mm(2") lap under support State

(圖8) Fig.8



在兩支撐柱間重疊情形
100mm(4") lap between support State



鋼質灰泥角條

Steel Plaster Angle Bead

鋼質灰泥角條可替代木尺作用，適用於各種環境狀況下，形成筆直的稜角以及完美包覆灰泥。在持久耐用之餘，可輔助塗抹的灰泥達到規定的厚度，避免破碎與龜裂，非常堅固。角條兩側的擴張網，讓使用上得以更舒適扎實；且有助於角條固定於灰泥中，可以強化灰泥、特別脆弱且較易受損的牆角與樑柱。

Shang Kai Steel's Steel Plaster Angle Bead is similar to an Angle Bead but with expanded metal on each side of the 90 degree bend. Expanded metal provides a straight and rigid surface for coating materials to adhere to. The bond between plaster and the expanded metal can guard an object against cracks and damage. This is a durable and efficient solution for enhancing corners and pillars.

製品規格表 Product Specifications

產品編號 Product Ref.	材料 Material	長度 Length	數量 Qty/Box (pcs)
SKAB50	鍍鋅鋼材 Galvanized steel	2500/2700	50
SKAB25	鍍鋅鋼材 Galvanized steel	2500/2700	50
SKAB50S	不鏽鋼材 Stainless steel	2500/2700	50
SKAB25S	不鏽鋼材 Stainless steel	2500/2700	50

尺寸單位 - 公釐

Units in mm

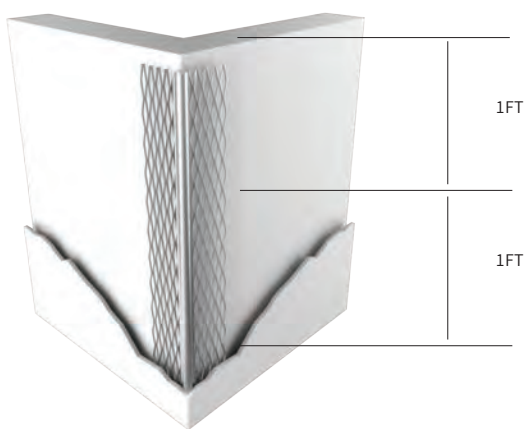
材料為熱浸鍍鋅鋼板。

Made by Pre-galvanized sheet material.

本公司另可製造上述標準以外之產品，請聯絡我們。

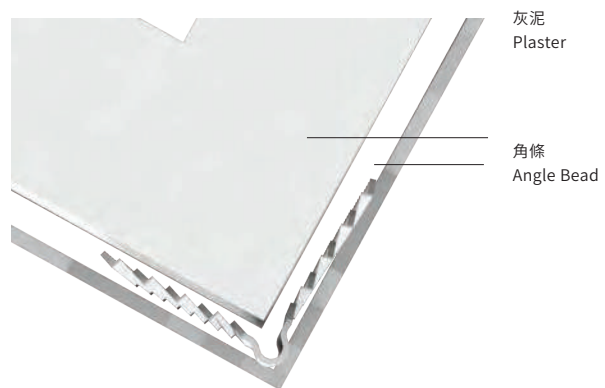
We can also manufacture products other than the above specifications, please contact us for details.

(圖1) Fig. 1

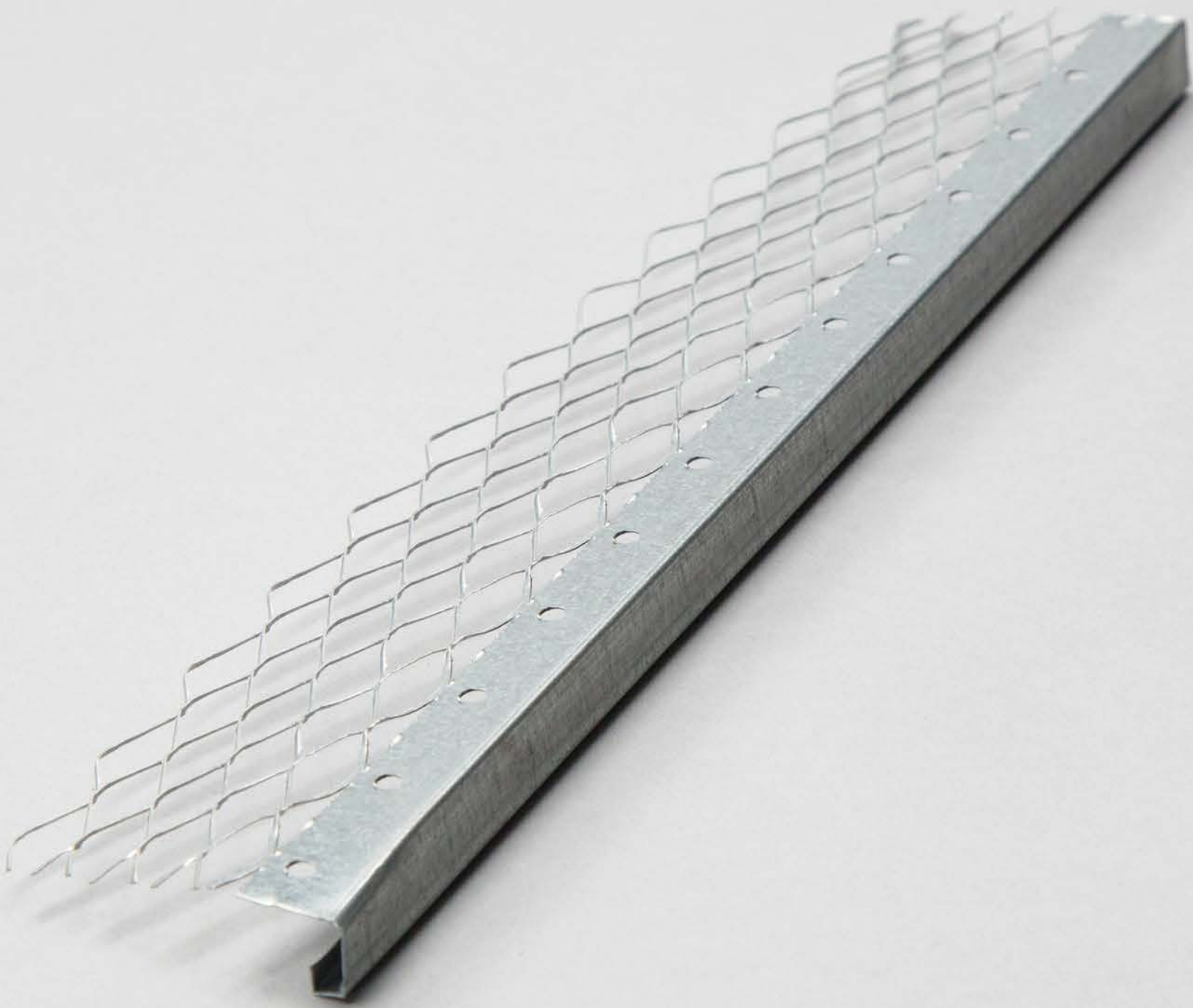


角條
Angle Bead

(圖2) Fig. 2



灰泥混凝土柱式牆外彎角
Outside corner for plaster concreted coumns or wall



鋼質收邊擋止條

Steel Stop Bead

鋼質灰泥收邊擋止條使用熱浸鍍鋅捲或不鏽鋼捲原料製造而成，持久耐用之餘亦非常穩固。兩項特殊設計有助於改善因連接處而產生的結構性移動或因熱脹冷縮而產生的灰泥龜裂。首先，牢固筆直的 L 型邊槽可順著砌出漂亮的牆面與牆角，有保護作用並防止裂紋產生，能改善細部塗抹之困難。另外一邊是擴張網連接成一條筆直稜角的線型，有助於在膨脹的接縫及邊緣之灰泥塗抹施工時，更貼合牆面並防止灰泥漿滴落。此外，擋止條亦可替代木框蓋或鑄模等木質模板的功能，用於門框處，即能確保房門順利開關，以減少工時，經濟實惠又美觀。

Steel Stop Bead is made from galvanized or stainless steel. It consists of half expanded metal and half unexpanded metal, formed into a L-shaped lip. This design makes it ideal for use in doorways and corners where the wall meets the ceiling. The rigidity of Steel Stop Bead allows for smooth application of plaster. It also relieves plaster from thermal expansion thus preventing cracks. Steel Stop Bead eliminates the need for wooden frames and molds in the construction of doorways. It can be mounted directly as reinforcement for concrete.

製品規格表 Product Specifications

產品編號 Product Ref.	材料 Material	長度 Length	數量 Qty/Box (pcs)
SKSB13	鍍鋅鋼材 Galvanized steel	2500/2700	50
SKSB19	鍍鋅鋼材 Galvanized steel	2500/2700	50

尺寸單位 - 公釐

Units in mm

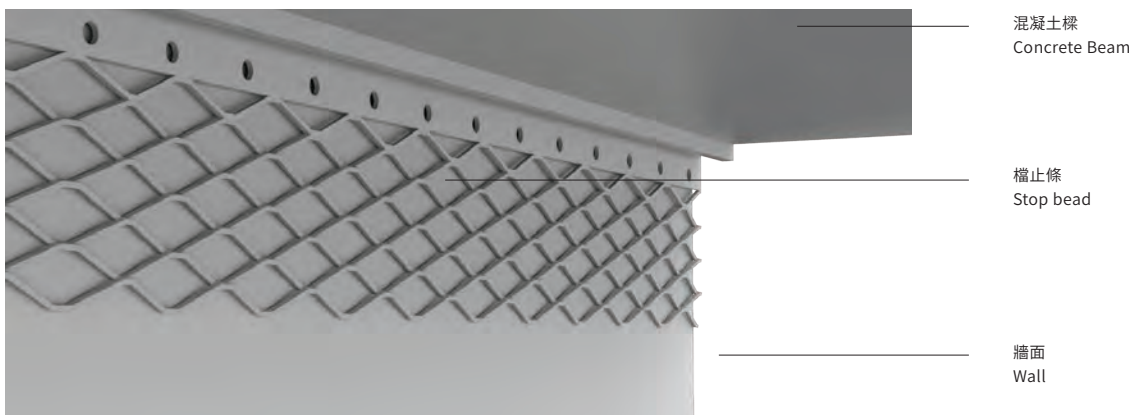
材料為熱浸鍍鋅鋼板。

Made by Pre-galvanized sheet material.

本公司另可製造上述標準以外之產品，請聯絡我們。

We can also manufacture products other than the above specifications, please contact us for details.

(圖3) Fig.3



灰泥收邊擋止條
Plaster Stop Bead

鋼質楣樑

Steel Lintels

鋼製楣樑主要用以取代傳統混凝土所鑄成的結構，針對不同客戶所需類型及安全負載力而創造出不同規格尺寸的產品，並符合 BS/ EN 10142、AST M-A525、JISG3302 的國際標準規定。因表面處理使用的 Z275 鍍鋅表層具高品質防腐功能，不但受時間影響，比起傳統方式，抗震能力更佳。不需起重裝備即可安裝，且減少混凝土的鍛造時間，使築牆施工更快速方便。此一功能性十足且極具特質的楣樑塑造了安全工程的卓越精準與便利。

Shang Kai Steel offers different sizes of Steel Lintels that comply with international industrial standards (BS/ EN 10142, AST M-A525, and JISG3302) to meet specific load-bearing requirements. The Steel Lintels undergo Z275 galvanizing which strengthens them and makes them resistant to corrosion. The Steel Lintels are designed to be shockproof and to outperform wooden lintels in efficiency and cost. Steel Lintels can be installed without using heavy machinery and can shorten the construction period.

浪型楣樑 Internal Lintel SKL 100/70

產品編號 Product Ref.	長度 Length	最大開啟跨度 Max. Span of opening	寬度 Width	安全平均負荷 (公噸) Safe distributed loading Tonnes	厚度 Thickness ± 10%	重量 Weight Kg/M ± 10%
SKL 100	900	700	70/100	0.20-0.70mT	1.2T	1.83/M
	1050	850	70/100			
SKL70	1100	900	70/100			
	1200	1000	70/100			

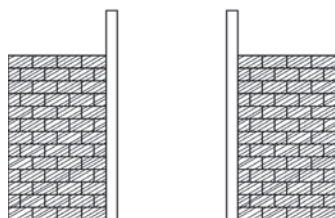
建議您在砌上一層磚後，過一天再繼續砌以減低傾斜斜度。

Highly recommend to lay first course of bricks and set for a day before laying subsequent brick to minimize deflection.

符合ASTM ASTM C1623標準規範

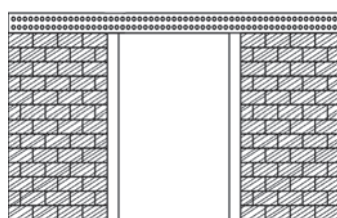
Our SKFP products conform to ASTM C1623

安裝方式 Installation



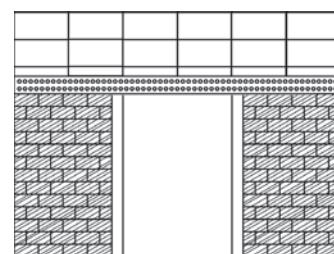
測定水平位置達成

Take level position is obtained



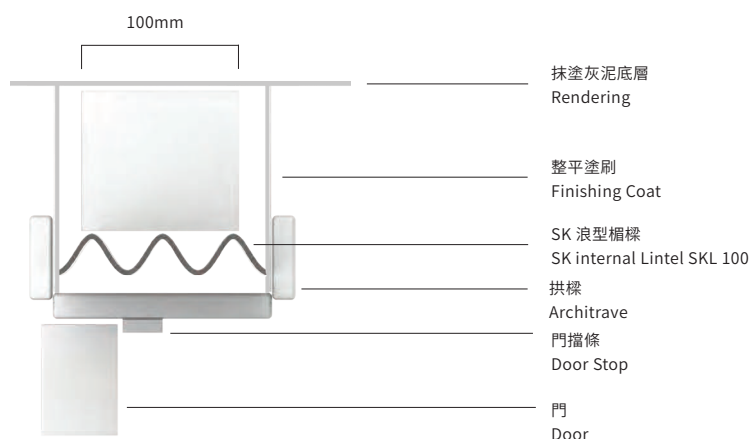
將楣樑放到位置上

Lintel is installed in to position



立即能繼續砌磚工作

Continuation of blockwork can be carried out immediately



抹塗灰泥底層
Rendering

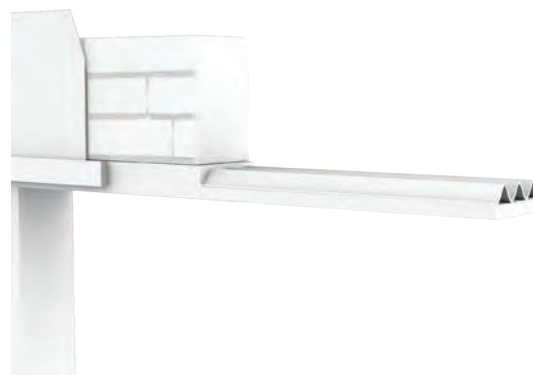
整平塗刷
Finishing Coat

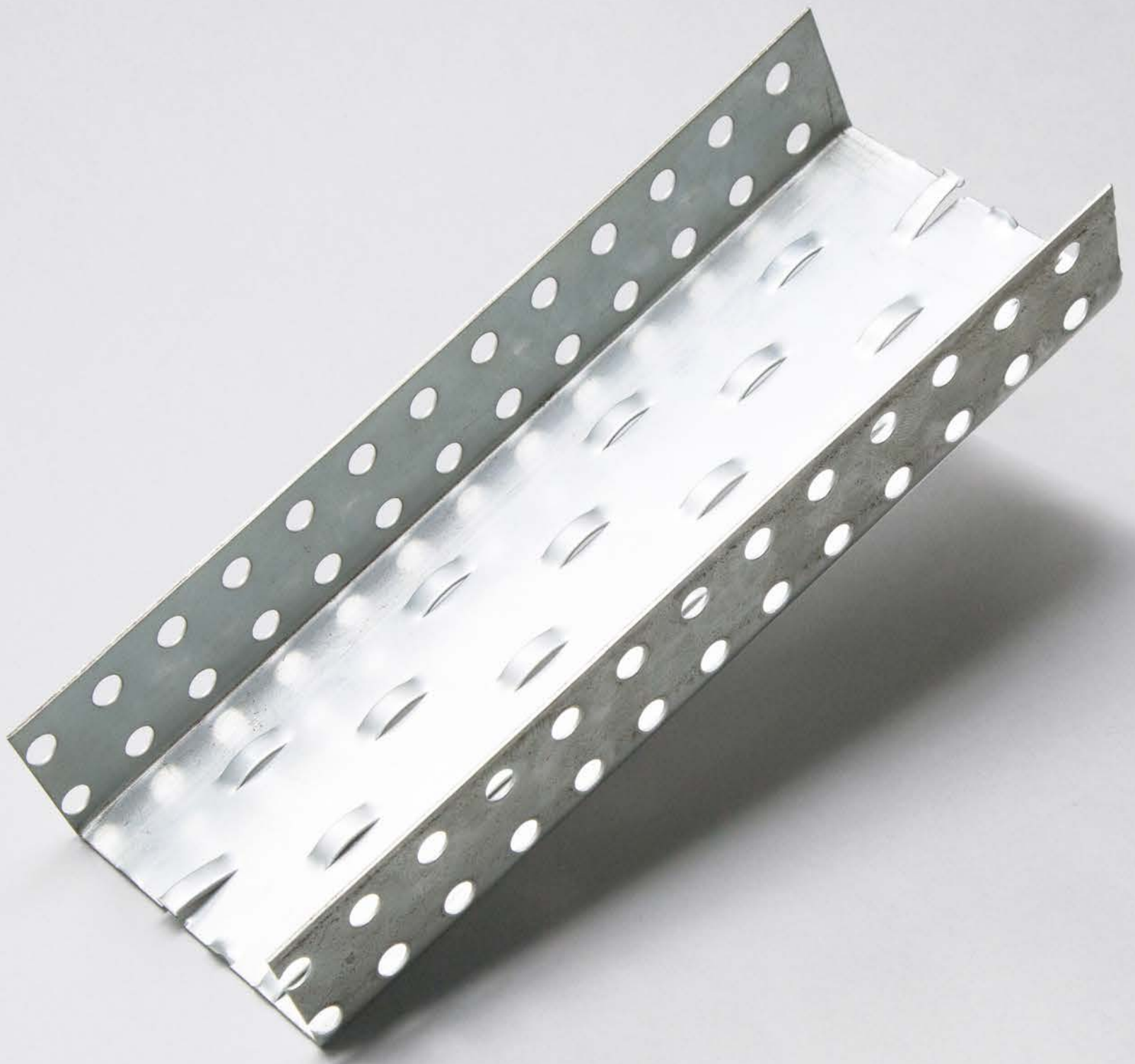
SK 浪型楣樑
SK internal Lintel SKL 100

拱樑
Architrave

門擋條
Door Stop

門
Door





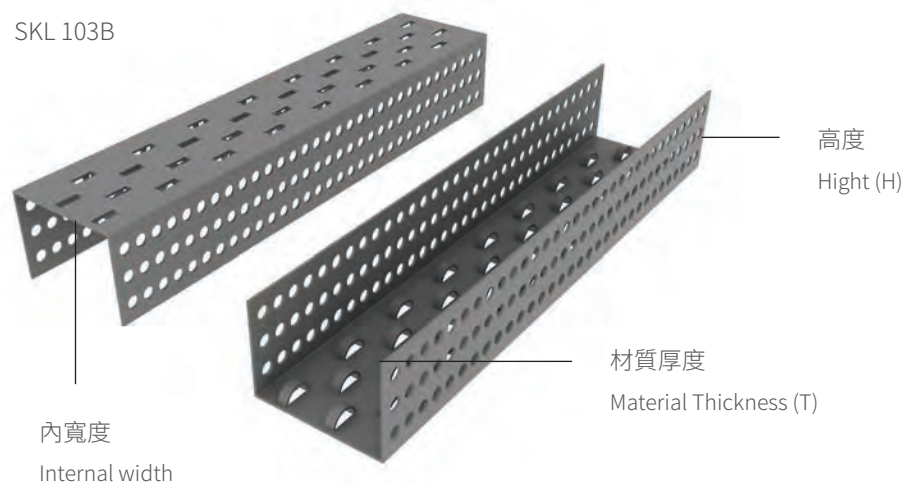
U型槽楣樑 1

U-Channel Lintel 1

製品規格表 Product Specifications

楣樑編號 Product Ref.	產品長度 Lengths	高度 Height	材料厚度 Thickness	內側寬度 Internal Width	重量 Weight (kg/m)
SKL 103	0800	50	1.6	103	2.65
	1300	50	1.6	103	2.65
SKL 103A	0800	75	1.6	103	3.18
	1300	75	1.6	103	3.18
SKL 103B	0800	75	2.0	103	3.97
	1300	75	2.0	103	3.97
	1600	75	2.0	103	3.97
SKL 103C	0800	75	2.6	103	5.20
	1300	75	2.6	103	5.20
	1600	75	2.6	103	5.20
	1900	75	2.6	103	5.20
SKL 103D	1300	100	2.6	103	6.18
	1600	100	2.6	103	6.18
	1900	100	2.6	103	6.18

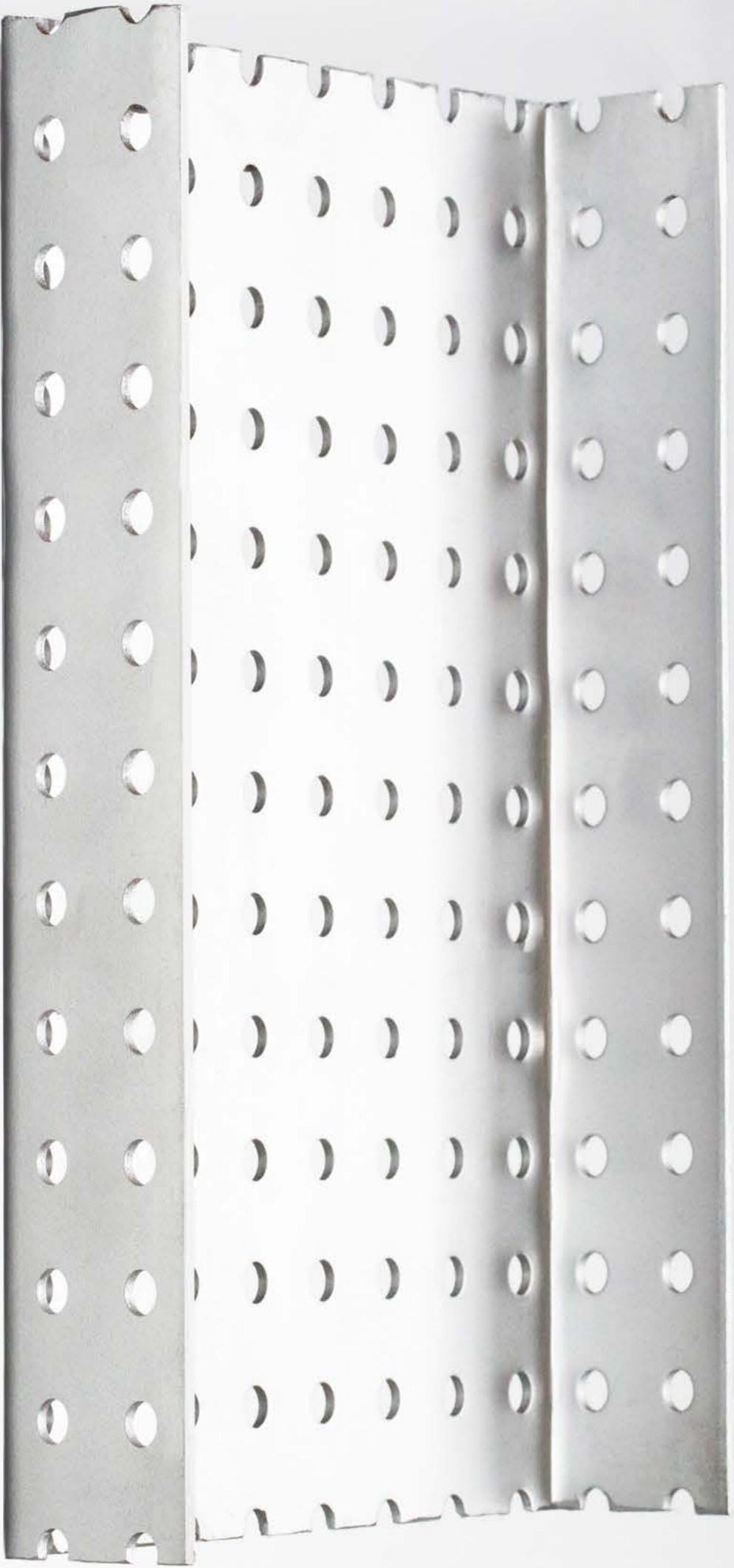
SKL 103B



尺寸單位 - 公釐 Units in mm

容許力矩, 降伏應力為250N/mm²

Allowable torque, yield stress 250N/mm²



U型槽楣樑 2

U-Channel Lintel 2

製品規格表 Product Specifications

楣樑編號 Product Ref.	產品長度 Lengths	高度 Height	材料厚度 Thickness	內側寬度 Internal Width	重量 Weight (kg/m)
SKL 153A	0800	50	2.0	153	3.8
	1300	50	2.0	153	3.8
SKL 153B	0800	50	2.5	153	4.85
	1300	50	2.5	153	4.85
	1600	50	2.5	153	4.85
SKL 153C	0800	50	3.2	153	6.05
	1300	50	3.2	153	6.05
	1600	50	3.2	153	6.05
	1900	50	3.2	153	6.05
SKL 153D	1300	75	3.2	153	7.25
	1600	75	3.2	153	7.25
	1900	75	3.2	153	7.25
SKL 203A	0800	50	2.0	203	4.5
	1300	50	2.0	203	4.5
SKL 203B	0800	50	2.5	203	5.71
	1300	50	2.5	203	5.71
	1600	50	2.5	203	4.85
SKL 203C	0800	50	3.2	203	7.24
	1300	50	3.2	203	7.24
	1600	50	3.2	203	7.24
	1900	50	3.2	203	7.24
SKL 203D	1300	75	3.2	3.2	8.57
	1600	75	3.2	3.2	8.57
	1900	75	3.2	3.2	8.57

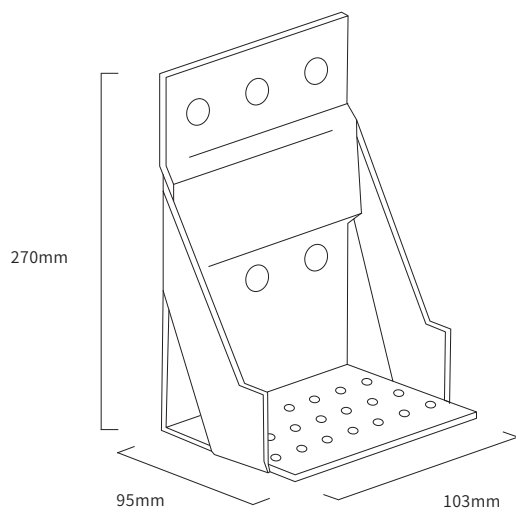
固定配件

Fixing Accessories For Lintels

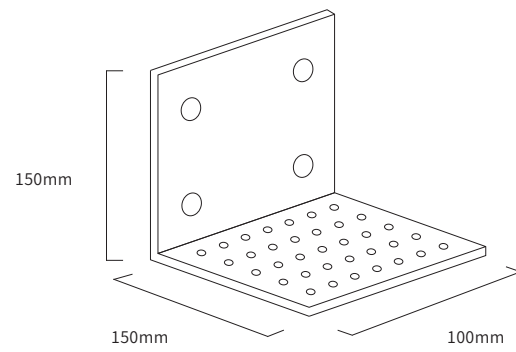
製品規格表 Product Specifications

托座參考號碼 Bracket Reference	適用於楣樑之編號 Suitable for lintels	最大負載荷 Maximum Load(KN) / 托座 Bracket	
SLB 1030	SKL 100-SKL 103A,B,C,D	5.00	8.00
		2 No.- 8/10	4 No.- 8/10
SLB 100	SKL 100-SKL 103A,B,C,D	4.50	7.20
		2 No.- 8/10	4 No.- 8/10

金屬擴張固定器 Mental expansion anchors



SLB 1030
厚度 Thickness: 3.0mm



SLB100
厚度 Thickness: 3.0mm

擴張網標準規範
Standard Specification for Expanded Metal

上鍍鋼鐵製造之擴張網是以符合 CNS、JIS、BS405、ASTM A 568/A 568M、ASTM A 924/A 924M 以及 ANSI H 35.2 等適用標準之金屬板或金屬鋼捲製成。以下所述的公差是廣為一般業界所接受的公差。上鍍鋼鐵可生產客製化特殊尺寸的標準材料。此時就會針對送料、寬度、板厚度、開放面積比例以及每平方呎形狀提供額外的公差，本公司亦可調整以符合客戶的特別需求。有關特殊客製化產品的規範細節請洽詢我們。

Shang Kai Steel's expanded metals are manufactured from sheet or coil in accordance with CNS, JIS, BS405, ASTM A 568/A 568M, ASTM A 924/A 924M, and ANSI H 35.2 as applicable. The tolerances outlined below are commonly accepted industry tolerances. Shang Kai Steel produce standard materials in customized sheet sizes. Additional tolerances are provided for thickness, percentage of open area, patterns per square foot. We also offer product adjustments made to meet the customer's requirements. Details on customised products can be provided upon request.

重量

重量變化不可超過本手冊所述每平方呎標稱重量的 $\pm 10\%$ 。

出貨量不足或過多

除非買方另有規定，否則所有訂單都可能會有規定數量的 $\pm 10\%$ 的出貨公差。

表面條件

擴張網的表面上通常會有一些製造過程中所使用的潤滑產品，其有助於防鏽。若供料時要求保持表面乾燥，供應商恕不負責因為沒有潤滑劑而產生的情況。

WEIGHT

Weight shall not vary in excess of ± 10 percent of the nominal weight per sf.

OVER AND UNDER SHIPMENT

All orders are subject to a shipping tolerance of ± 10 percent of specified quantities unless otherwise required by the buyer.

SURFACE CONDITION

Some lubricants used in manufacture are usually present on Expanded Metal surfaces to prevent corrosion. When requested to furnish dry, supplier shall not be responsible for conditions resulting from the absence of lubricants.

標準尺寸

- SWD(菱形短向)
變化不得超過每呎 SWD 尺寸的 $-0/+1/4$ 吋
(每 100mm 長度 2mm)。
- LWD(菱形長向)
每片金屬板變化不得超過 $-0/+1.4$ 吋 (2mm)。
- 曲度 - 單側
邊緣到一條直線的最大差異不得超過每呎尺寸的 $3/32$ 吋 (每 100mm 長度 0.8mm)。
- 漸縮
邊緣與平行線之間的差異不得超過每呎尺寸的 $1/16$ 吋
(每 100mm 長度 0.5mm) 或者整體 $1/4$ 吋 (6.4mm)，
取大者。
- 垂直度
末端的垂直度偏差不得超過每呎 $1/8$ 吋
(每 100mm 長度 1mm) 或整體 $1/2$ 吋 (12.7mm)。
- 平面度 (水平度)
金屬板中不得出現突出平面 $1-1/2$ 吋 (38.1mm) 的波紋
或挫曲。

標準壓平尺寸

- 壓平後 SWD
變化不得超過每呎尺寸的 $-0/+1/4$ 吋
(每 100mm 長度 2mm)。
- 壓平後 LWD
變化不得超過每呎尺寸的 $-0/+1/4$ 吋
(每 100mm 長度 2mm)。
- 壓平後曲度
單側邊緣與直線之間的最大差異在壓平後不得超過每呎
尺寸的 $3/32$ 吋 (每 100mm 長度 0.8mm)。
- 漸縮
金屬板邊緣與平行線之間的差異不得超過每呎尺寸的
 $1/8$ 吋 (每 100mm 長度 1mm) 或者整體最大 $3/8$ 吋
(9.5mm)，取大者。
- 垂直度
末端的垂直度偏差不得超過每呎 $1/8$ 吋
(每 100mm 長度 1mm) 或整體 $1/2$ 吋 (12.7mm)。
- 平面度
金屬板中不得出現突出平面 $1-1/2$ 吋 (38.1mm) 的波紋
或挫曲。

擴張網尺寸

- SWD
與標稱尺寸之間的差異不得超過每呎寬度的
 $-0/+1/4$ 吋 (每 100mm 長度 2mm)。
- LWD
變化不得大於超過或少於半個菱形尺寸。

STANDARD DIMENSIONS

- SWD
Shall not vary greater than $-0 +1/4$ in. per foot
(2 mm per 100 mm) of SWD dimension.
- LWD
Shall not vary greater than $-0/+1.4$ in (2 mm) per sheet.
- Camber
The greatest deviation of a side - edge from a straight line
shall not exceed $3/32$ in. per foot (0.8mm per 100 mm)
of dimension.
- Taper
Edges shall not deviate from parallel by more than $1/16$ in.
per foot (0.5 mm per 100 mm) of dimension, or $1/4$ in. (6.4
mm) overall, whichever is greater.
- Squareness
End shall not be more than $1/8$ in. per foot (1 mm per 100 mm)
out of square or $1/2$ in. (12.7 mm) overall.
- Flatness (Levelness)
Sheets shall be free from waves or buckles are in excess of
 $1-1/2$ in. (38.1 mm) from a plane surface.

STANDARD FLATTEN DIMENSIONS

- SWD after flattening--Shall not vary from the
nominal dimension more than $-0 +1/4$ -in. per foot (2
mm per 100 mm) of dimension.
- LWD after flattening--Shall not vary from the nominal
dimension more than $-0 +1/4$ -in. per foot (2 mm per
100 mm) of dimension.
- Camber after flattening--The greatest deviation of
a side edge from a straight line after flattening shall
not exceed $3/32$ -in. per foot (0.8 mm per 100 mm)
of dimension.
- Taper--Sheet edges shall not deviate from parallel
greater than $1/8$ - in. per foot (1 mm per 100 mm) of
dimension, to a maximum $3/8$ -in. (9.5mm) overall.
- Squareness--Ends shall not be more than $1/8$ in.
per food (1 mm per 100 mm out of square or $1/2$ in.
(12.7 mm) overall.
- Flatness (levelness)--Sheets shall be free from waves
or buckles that are in excess of $1-1/2$ in.
(38.1 mm) from a plane surface.

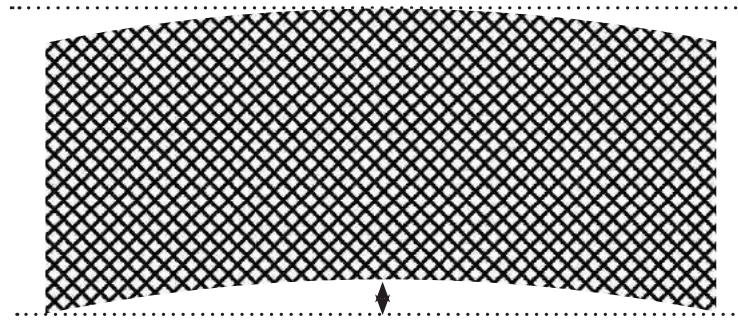
EXPANDED MESH SIZE DIMENSIONS

- SWD
Shall not vary from the nominal dimension more than
 $-0 +1/4$ - in. per foot (2 mm per 100 mm) of width.
- LWD
Shall not vary greater than $-0 +1/2$ diamond size.

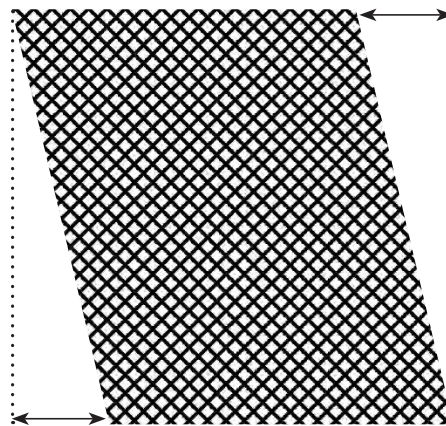
ASTM 標準規範

Manufacturer Tolerance

(圖1) Fig. 1



(圖2) Fig. 2



曲度

金屬板中彎曲的程度。將一支直尺貼在金屬板向內凹的邊緣上來進行測量，直尺與 LWD 平行並碰觸到金屬板的兩端。擴張網邊緣與直尺之間的最大距離就是曲度。(圖一)

CAMBER

Bow in sheet. It is measured by placing a straight edge along the concave side of the sheet, parallel to the LWD, touching both ends of the sheet. The camber refers to the maximum distance between the edge of the Expanded Metal and the straight edge. A sheet may be within a width tolerance and still have camber.(Fig1)

垂直度

擴張網是根據第 71 頁的公差來製造。必須要規定更小的公差並且要裁剪部分或所有邊緣來符合公差 (請見第 74 頁)。標準型與軋平型：整體不得超過 1 / 2in 或 兩側不得超過平方英尺 1/8 英寸。(圖二)

SQUARENESS

Expanded Metal sheets are manufacture to tolerances shown on Page 71. Tighter tolerances must be specified and are obtained by shearing some or all sides. (See page 74). Standard/Flattened-Ends shall not be more than 1/8in per foot out of square or 1/2in. overall.(Fig2)

壓平

用來生產壓平擴張網的製程。多數種類與形式都可以壓平，包括一些格柵板。(XF Type 請見第 16 頁)

整平

擴張網經過延展之後，會用整平裝置進行整平。軋平型平整度 - 每一片產品波浪狀或凹凸面不得超過 1-1 / 2 “。

裁剪

裁剪是用來依照需要做出特別的尺寸與 / 或公差。基本類型的裁剪是隨機的。在隨機裁剪當中，裁剪線會落在網格形狀上的隨機一點。邊緣是開放的，且菱形沒有搭配 (請見第 71 頁)。

FLATTENING

The process is used to produce flattened Expanded Metal. Most styles and designations may be flattened including some gratings.(XF Type See page 16).

LEVELING

Expanded Metal is leveled after expansion by either an integral or separate leveling device.Flatness -Sheet shall be free from waves or buckles that are in excess of 1-1/2in. from a plane surface.

SHEARING

Shearing is used to attain a special size and/ or tolerance as required. The basic type shearing is random. In random shearing, the shear line falls at random points on the mesh pattern. Edges are open and diamonds are not matched (See page 71).

材料

任何有延展性的金屬類材料均可製作成擴張網。
以下普遍材料

鋼鐵：

- 冷軋鋼板 (ASTM A 1008 / A1008M)
- 熱軋鋼板 (ASTM A1011 / A1011M)
- 鍍鋅鋼板 (ASTM A 653 / A653m)
- 熱浸鍍鋅鋼板 (ASTM A 123/A123M)

鋁：

- 普遍鋁材料 3003-H14,5005-H34 and 5052-h32 (ASTM B209)

不鏽鋼：

- 不鏽鋼 304 and 不鏽鋼 316 (ASTM 666)
- 不鏽鋼 400 (ASTM A176)

其他金屬類：

- 銅, 鎳, 鈦 (Grand 1 and 2), 特殊金屬。

TYPES OF MATERIALS

Materials used in the manufacture of Expanded Metal include but not limited to:

Steel:

- Cold-rolled (ASTM A 1008 / A1008M)
- Hot-rolled (ASTM A1011 / A1011M)
- Galvanized before expanding (ASTM A653 / A653m)
- Hot Dip Galvanized (ASTM A 123/A123M)

Aluminum:

- Most common alloys-usually 3003-H14,5005-H34 and 5052-h32 (ASTM B209)

Stainless:

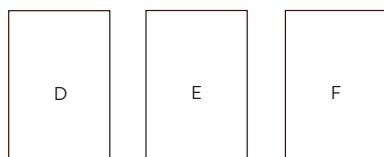
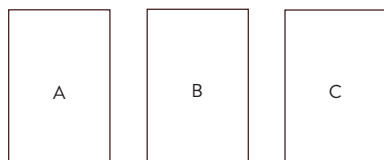
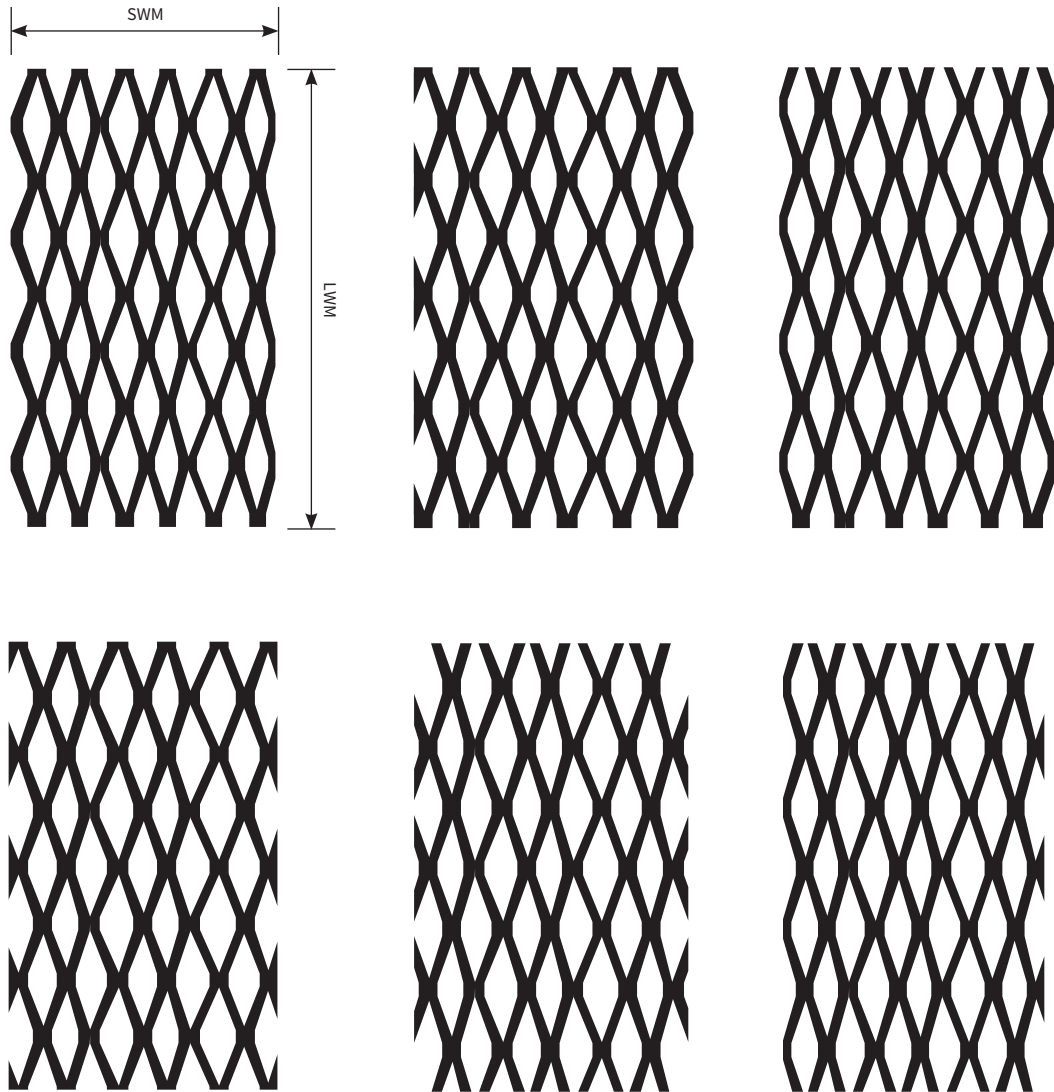
- Type 304 and 316 (including extra low-carbon grads) (ASTM 666)
- Most 400 types (ASTM A176)

Other Metals:

- Cooper,Nickel,Titanium (Grand 1 and 2), precious metals.

ASTM 標準規範

Manufacturer Tolerance



標準型與軋平型擴張網之製造公差
(庫存尺寸或標準原料板材尺寸)

SWM(菱形短向)
變化不得超過每呎寬度的 $-0/+1/4$ 吋
(例如: 48 吋可以是 49 吋)

LWM(菱形長向)
變化不得超過每呎長度的 $-0/+1/4$ 吋
(例如: 96 吋可以是 98 吋)

一般與壓平擴張網及延展擴張網之隨機裁剪

- A. 一般而言, 所有庫存或標準原料板材尺寸在所有四邊是封閉的菱形(完整孔目)。
- B. 一側裁剪 LWM
SWM – 一端裁剪 (開放菱形)
- C. 一側裁剪 SWM
LWM – 一端裁剪 (開放菱形)
- D. 左右兩側裁剪
LWM- 兩側均開放菱形
- E. 四邊裁剪
SWM – 兩側均開放菱形
LWM – 兩側均開放菱形
- F. 三邊裁剪
SWM – 兩側為開放菱形
LWM – 一側為封閉菱形

MANUFACTURING TOLERANCES OF REGULAR & FLATTENED EXPANDED METAL (Stock Size or Standard Sheet Metal Sizes)

SWM (short way of diamond)
Shall not vary greater than $-0" +1/4$ in.
per foot of width (Example: 48" could be 49")

LWM (long way of diamond)
Shall not vary greater than $-0" +1/4$ in.
per foot of length (Example: 96" could be 98")

RANDOM SHEARED TOLERANCES OF REGULAR/FLATTENED EXPANDED METAL & EXPANDED METAL GRATING

- A. Generally all stock or standard sheet metal sizes will have closed diamonds all four sides.
- B. Sheared on one side-LWM
SWM-Causing open diamonds one side.
- C. Sheared on one side-SWM
LWM-Causing open diamonds one side.
- D. Two-side sheared
LWM-Open diamonds 2 sides.
- E. Four-side sheared
SWM-Open diamonds two sides
LWM-Open diamonds two sides
- F. Three-side sheared
SWM -Open diamonds two sides
LWM -Closed diamonds one sides

塗裝

由於擴張網可適用於多種金屬表面處理, 因此可以針對各種不同的用途進行鍍鋅、陽極處理、上漆或者電鍍。此外因為在擴張網製程中會使用輕潤滑油, 因此產品在塗裝前應該要清理乾淨。

在熱浸鍍鋅時金屬會因為高溫而出現些許扭曲。此外, 鍍鋅並不一定都會得出平滑平整的塗裝。

建議 1/2 吋 (12.7mm) 的形狀、重量小於 0.081 吋 (2mm) 以及每平方呎重量較輕的大菱形形狀不要鍍鋅。用鍍鋅金屬板製作這些項目時應多做考量。

COATINGS

Because of its adaptability to metal finishing processes, Expanded Metal can be galvanized, anodized, coated, painted or plated for a variety of applications. Because of the light lubricant used during the expanding process, the product should be cleaned prior to finishing.

In hot-dip galvanizing, there can be some warpage of metal because of high temperatures. In addition, galvanizing does not always produce a smooth and even coating.

It is recommended that patterns of 1/2-in. (12.7 mm), lighter than 0.084 in. (2 mm), and large diamond patterns with a light weight per square foot not be galvanized. Consideration should be given to producing these items from galvanized sheet.

NAAMM 美國規範

NAAMM Standards For Expanded Metal

Standard- Steel

代號 Style		最薄厚度 Min. Thicknes	重量 Weight (Lbs /100 Sq.ft)	厚度 Thicknes (Inch)	網目尺寸 SWD	LWD	Width
1/4"	#20	0.032	85	0.036	0.25	1.00	0.072
1/4"	#18	0.042	113	0.048	0.25	1.00	0.072
1/2"	#20	0.032	42	0.036	0.50	1.20	0.072
1/2"	#18	0.042	69	0.048	0.50	1.20	0.088
1/2"	#16	0.053	85	0.060	0.50	1.20	0.087
1/2"	#13	0.083	141	0.090	0.50	1.20	0.096
3/4"	#16	0.053	54	0.060	0.923	2.00	0.101
3/4"	#13	0.083	77	0.090	0.923	2.00	0.096
3/4"	#10	0.083	117	0.092	0.923	2.00	0.144
3/4"	#9	0.127	178	0.134	0.923	2.00	0.15
1"	#16	0.053	43	0.060	1.00	2.40	0.087
1-1/2"	#18	0.042	20	0.048	1.33	3.00	0.068
1-1/2"	#16	0.053	40	0.060	1.33	3.00	0.108
1-1/2"	#13	0.083	58	0.090	1.33	3.00	0.105
1-1/2"	#10	0.083	76	0.090	1.33	3.00	0.138
1-1/2"	#9	0.127	119	0.134	1.33	3.00	0.144
1-1/2"	#6	0.184	247	0.198	1.33	3.00	0.203
2"	#10	0.083	65	0.090	1.85	4.00	0.164
2"	#9	0.127	88	0.134	1.85	4.00	0.149

本公司另可製造上述標準以外之產品，請聯絡我們。

We can also manufacture products other than the above specifications, please contact us for details.

Standard-Stainless Steel

代號 Style		最薄厚度 Min. Thicknes	重量 Weight (Lbs /100 Sq.ft)	厚度 Thicknes (Inch)	網目尺寸 SWD	LWD	Width
1/2"	#18	0.044	69	0.048	0.50	1.20	0.087
1/2"	#16	0.055	87	0.060	0.50	1.20	0.087
1/2"	#13	0.085	143	0.090	0.50	1.20	0.096
3/4"	#18	0.044	46	0.048	0.923	2.00	0.106
3/4"	#16	0.055	57	0.060	0.923	2.00	0.106
3/4"	#13	0.085	87	0.090	0.923	2.00	0.107
3/4"	#9	0.128	194	0.135	0.923	2.00	0.160
1-1/2"	#16	0.055	43	0.060	1.33	3.00	0.115
1-1/2"	#13	0.085	65	0.090	1.33	3.00	0.115
1-1/2"	#9	0.128	130	0.135	1.33	3.00	0.155

Standard-Aluminum

代號 Style		最薄厚度 Min. Thicknes	重量 Weight (Lbs /100 Sq.ft)	厚度 Thicknes (Inch)	網目尺寸 SWD	LWD	Width
1/2"	.050	0.045	26	0.050	0.50	1.20	0.093
1/2"	.080	0.074	43	0.080	0.50	1.20	0.096
3/4"	.050	0.045	17	0.050	0.923	2.00	0.109
3/4"	.080(L)	0.074	31	0.080	0.923	2.00	0.129
3/4"	.080(H)	0.074	40	0.080	0.923	2.00	0.165
3/4"	.125	0.118	64	0.125	0.923	2.00	0.169
1-1/2"	.080	0.074	22	0.080	1.33	3.00	0.128
1-1/2"	.125	0.118	43	0.125	1.33	3.00	0.162

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ASTM 美國規範

NAAMM Standards For Expanded Metal

Flattened -Steel

代號 Style		最薄厚度 Min. Thicknes	重量 Weight (Lbs /100 Sq.ft)	厚度 Thicknes (Inch)	網目尺寸 SWD	LWD	Width
1/4"	#20	0.026	74	0.029	0.25	1.05	0.079
1/4"	#18	0.034	100	0.038	0.25	1.05	0.080
1/2"	#20	0.026	37	0.029	0.50	1.26	0.079
1/2"	#18	0.034	61	0.038	0.50	1.26	0.097
1/2"	#16	0.043	77	0.048	0.50	1.26	0.098
1/2"	#13	0.066	126	0.072	0.50	1.26	0.107
3/4"	#16	0.043	47	0.048	0.923	2.10	0.111
3/4"	#14	0.054	56	0.060	0.92	2.10	0.105
3/4"	#13	0.066	67	0.072	0.923	2.10	0.106
3/4"	#10	0.066	102	0.072	0.923	2.10	0.160
3/4"	#9	0.101	157	0.108	0.923	2.10	0.165
1"	#16	0.043	38	0.048	1.00	2.52	0.098
1-1/2"	#16	0.043	35	0.048	1.33	3.15	0.119
1-1/2"	#14	0.054	43	0.060	1.33	3.15	0.116
1-1/2"	#13	0.066	51	0.072	1.33	3.15	0.116
1-1/2"	#9	0.101	105	0.108	1.33	3.15	0.158

Flatened-Stainless Steel

代號 Style		最薄厚度 Min. Thicknes	重量 Weight (Lbs /100 Sq.ft)	厚度 Thicknes (Inch)	網目尺寸 SWD	LWD	Width
1/2"	#18	0.037	66	0.041	0.50	1.26	0.098
1/2"	#16	0.047	84	0.051	0.50	1.26	0.099
1/2"	#13	0.072	136	0.076	0.50	1.26	0.107
3/4"	#18	0.037	43	0.041	0.923	2.10	0.118
3/4"	#16	0.047	54	0.051	0.923	2.10	0.118
3/4"	#13	0.072	83	0.076	0.923	2.10	0.120
3/4"	#9	0.108	185	0.114	0.923	2.10	0.179
1-1/2"	#16	0.047	41	0.051	1.33	3.15	0.128
1-1/2"	#13	0.072	62	0.076	1.33	3.15	0.130
1-1/2"	#9	0.108	124	0.114	1.33	3.15	0.174

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We can also manufacture products other than the above specifications, please contact us for details.

Flattened-Aluminum

代號 Style	最薄厚度 Min. Thicknes	重量 Weight (Lbs /100 Sq.ft)	厚度 Thicknes (Inch)	網目尺寸 SWD	LWD	Width	
1/2"	.050	0.034	22	0.038	0.50	1.26	0.104
1/2"	.080	0.056	35	0.060	0.50	1.26	0.105
3/4"	.050	0.034	14	0.038	0.923	2.10	0.122
3/4"	.080 (L)	0.056	26	0.060	0.923	2.10	0.143
3/4"	.080 (H)	0.056	33	0.060	0.923	2.10	0.181
3/4"	.125	0.089	53	0.094	0.923	2.10	0.187
1 1/2"	.080	0.056	18	0.060	1.33	3.15	0.143
1 1/2"	.125	0.089	36	0.094	1.33	3.15	0.181

Grating - Steel

代號 Style	重量 Weight (Lbs /100 Sq.ft)	厚度 Thicknes (Inch)	網目尺寸 SWD	LWD	Width
2.0 lb.	2.00	0.135	1.33	5.33	0.235
3.0 lb	3.00	0.183	1.33	5.33	0.264
3.14 lb	3.14	0.250	2.00	6.00	0.312
4.0 lb	4.00	0.215	1.33	5.33	0.300
4.27 lb.	4.27	0.250	1.41	4.00	0.300
5.0 lb	5.00	0.250	1.33	5.33	0.331
6.25 lb	6.25	0.312	1.41	5.33	0.350
7.0 lb	7.00	0.318	1.41	5.33	0.391

Carbon Steel-Standard

代號 Style	重量 Weight (Lbs /100 Sq.ft)	厚度 Thicknes (Inch)	網目尺寸 SWD	LWD	Width
3/32" #24	56.00	0.024	0.14	0.24	0.040
1/8" #24	52.00	0.024	0.15	0.30	0.040
3/15" #26	26	0.018	0.19	0.50	0.034
3/16" #2	49.00	0.024	0.20	0.50	0.050
3/16" #22	72	0.031	0.21	0.50	0.060
1/4" #22	51.00	0.031	0.25	0.67	0.050

Small diamond designs are available in other alloys such as aliminim, stainless steel, nickel, cooper and silver

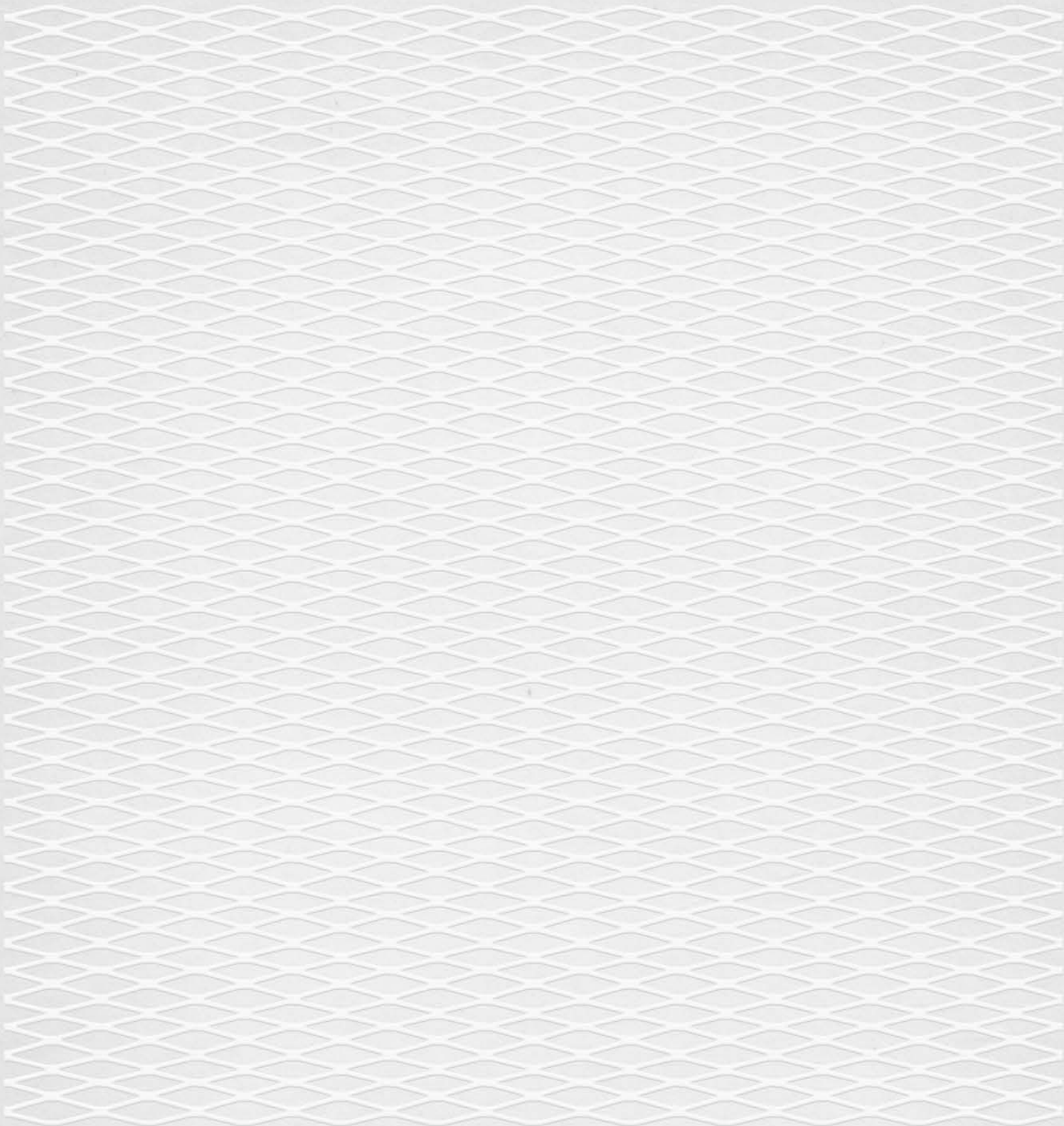
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上鎧鋼鐵
SHANG KAI STEEL

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